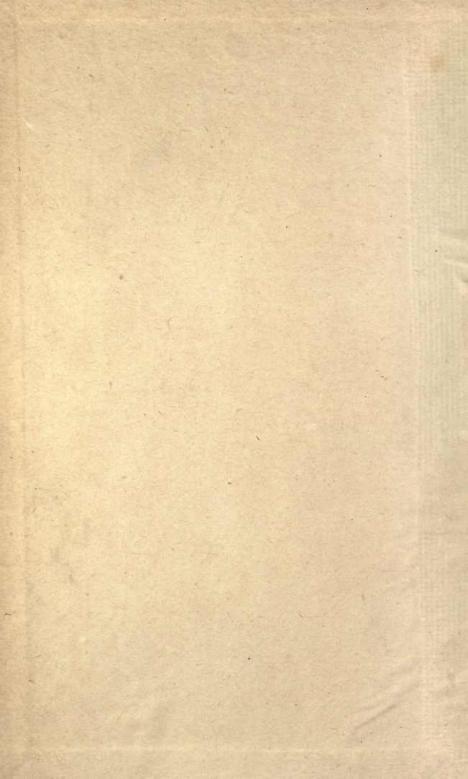
BRITISH WILD FLOWERS BY NATURAL ANALYSIS ——

MESSER.



A NEW AND EASY METHOD

OF STUDYING

BRITISH WILD FLOWERS BY NATURAL ANALYSIS;

BEING A COMPLETE SERIES OF

ILLUSTRATIONS

OF THEIR NATURAL ORDERS AND GENERA

Analytically Arranged.

BY

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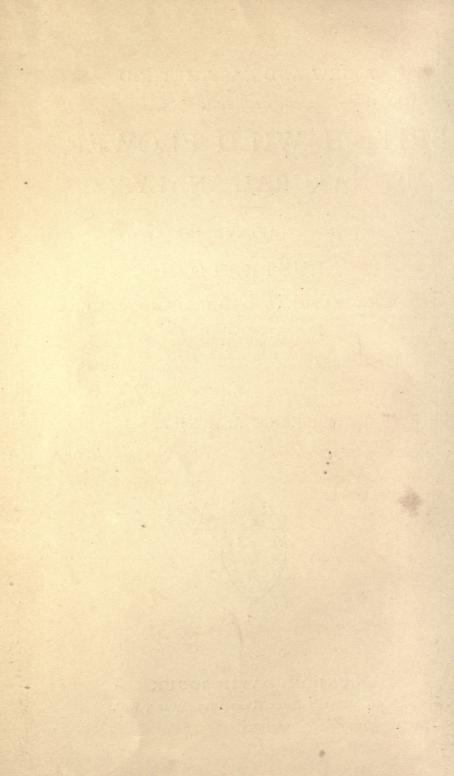


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INTRODUCTION.

This work has grown out of a want, which was much felt by the author, of some method which would simplify the study of our native plants, by placing before the student the characteristic distinctions of their Natural Orders and Genera in a clearer and more striking manner than is possible by means of verbal description alone; and which would at the same time possess in itself the principles and advantages of analytical arrangement.

In botanical letter-press description, the recurrence of numerous technical terms, unaided by illustrations, is always a difficulty, and frequently a source of discouragement to beginners; the usual method of acquiring a knowledge of these terms being very laborious; and the consequence is, that the attempt to master it is often abandoned.

And even when the description is accompanied by full illustrations of the individual plant, there is the danger of undue attention being devoted to the latter, to the neglect of the descriptions of the Ordinal and Generic features. The student is too often satisfied if he can apparently identify his specimens by a general resemblance to the illustrations, even though he may gain little or no knowledge of the reasons for their classification.

With a view to obviate these objections, and to supply the

want referred to, the author has adopted a new method of utilizing illustrative figures. These figures represent the separate parts or dissections, characteristic of the Orders and Genera, and are disposed in harmony with verbal analytical arrangement: they form in fact a series of illustrated analytical tables; the application of this principle to the figures, and the combination of verbal and pictorial analysis being the special features of this work.

That illustrations are a more powerful, as well as a more alluring and ready means of imparting knowledge, than letter-press alone, will not be doubted. As the eye travels rapidly over the illustrated page, it takes in at one view the contents, and there is presented to the mind a comprehensive idea of the subject. So with regard to this work, a few references to an illustrated analytical table will go far to familiarize the mind with the relationship which exists between the various parts of the plants; and the impression produced will soon deepen and become fixed on the memory. This pictorial method resembles, more closely than any other, the natural process, or that which is intuitively followed in the comparative examination of the parts of the plants themselves.

For a full explanation of any of the figures, the student will refer to the complete description, formed on the principle of the usual analytical method, which accompanies each illustrated page.

It will, on the first occasion of consulting an analysis, be advantageous to refer freely to both pages, in order that the exact meaning of the illustrations may be acquired.

With regard to the variations in form, which exist in the corresponding parts of plants of the same Order or Genus, it must be borne in mind that a form which appears to be the most typical has been chosen for illustration. As the figures given are typical of Orders and Genera only, the student must not necessarily expect to find strict identity, but may

have to seek for the form most nearly approaching that of the plant under examination; the judgment being allowed to range among the various forms most allied to the plant, without being limited to discovering one identical in all respects. As, for example, in the case of cross sections of seed vessels, which in a great many instances illustrate the general structure only.

A few symbolical illustrations, principally in the Divisional and Ordinal headings, have been introduced; these are fully explained in the list given at page 12, but they are in most instances so characteristic of the parts they represent, as to speak for themselves. In cases where an illustration includes a considerable variation of outline, the symbolical figure is used: where the form is of importance, the typical configuration is given. This mingling of symbolical with typical forms leads to no perplexity, the symbolical being readily distinguished as representatives only of the parts.

The course to be taken in tracing a plant through the illustrated divisional spaces may be explained as follows. The characters of any one illustrated space are common to the Orders or Genera which are found directly to the right of that space. In testing a plant, therefore, after finding that its parts agree generally with those under a particular heading, compare it with the illustrations in the uppermost space of the first column, then with those in the space immediately beneath, and so on down the column, taking the spaces in consecutive order, until one be found whose contents most closely agree with the corresponding part of the plant. Then, passing to the uppermost of the spaces which are immediately to the right of the last found space, compare the illustrations with the specimen, and proceed in like manner down the whole of those spaces, until one be met with whose contents correspond most closely with the plant. From this last-named space proceed to the next column, and so on, until the Order or Genus be reached.

Take, as an example, the common corn poppy: beginning at the analysis of Classes, at page 14, it is there found to be a flowering plant, and that it belongs to Class I., Exogens. Passing to the analysis of Divisions, at page 16, it is seen that it comes under Division I.; turning to the analysis of Orders, which commences at page 18, observe at page 20 the second heading, with some of the characters in which, it will be seen that the plant agrees. Then, testing the specimen by the analysis beneath this heading, it is found to coincide (1) with the contents of the second space of the first column; (2) with those in the lowest space of the second column;

(2) with those in the lowest space of the second column; (3) with the figure in the second of the five spaces in the third column, adjoining the space last named; and (4) with the figure in the space to the right of the one last referred to. The conclusion, therefore, is that the plant belongs to Order 4, Papaveraceæ.

On referring to this Order in the analysis of Genera, at page 42, and comparing the specimen with the heading and with the analysis beneath it, it is seen that it accords with the figures in the uppermost spaces in the first, second, and third columns, thus showing that it belongs to the Genus Papaver, or Poppy.

A chart, at page 124, illustrating by the length of a black line the number of species in each order, furnishes the student with a comparative view of the relation which the Orders bear to each other in this respect.

To enable him to ascertain what species are included under each Order or Genus, a catalogue in accordance with the classification followed in this work is given at page 125: the arrangement corresponds closely with Professor Babington's 'Manual of British Botany,' and in the selection of species it nearly coincides with Sir J. D. Hooker's 'Student's Flora.' Sub-species are not given, their introduction being foreign to the object with which the catalogue has been prepared.

In carrying out this work the British Genera alone have been taken into consideration, and for the purpose of discrimination any prominent or characteristic feature has been selected. The illustrations simply indicate the form, and have no relation to the actual or relative size of the parts.

To his friend Mr. G. S. Penson, of Plumstead, the author returns his sincere thanks for many valuable suggestions made during the progress of the work, and for revising the manuscript and proof-sheets.

GLOSSARY.

A compound word, such as "ovate-lanceolate," means a form intermediate between the two.

ACCUMBENT; having the edges of the cotyledons applied to the radicle.

ACHENE; a dry, simple, indehiscent fruit.

ACUMINATE; tapering to a point.

ADNATE; united throughout its length to another organ.

ALBUMEN; the nutritious matter contained in a seed for the sustenance of the young plant arising therefrom in its first stage of growth.

ALTERNATE; attached to opposite sides, but not opposite to each other.

ANGULAR; with angles or edges more or less projecting.

ANTHER; the part of the stamen which contains the pollen. APEX; the extremity furthest from the point of attachment.

ASCENDING; curved upwards.

Awn; a long bristle-like midrib, as the beard of Barley. AxiL; the angle formed by the union of the stem and leaf.

AXILLARY; growing from the axil.

BEAK; a pointed projection.

BEARDED; having a long tuft of hairs like a beard.
BERRY; a fleshy or pulpy fruit containing several seeds.
BIFID; cleft half-way down.

BIPARTITE; cleft nearly to the base.

BRACTS; small leaves on the inflorescence.

BRISTLES; stiff hairs.

BULB; underground leaf-buds with fleshy scales.

CALYX; the outer whorl of floral leaves, usually green, the separate pieces of which are called sepals.

CAMPANULATE; bell-shaped.

CAPITATE; growing in heads or very close clusters.

CAPSULE; a dry, dehiscent, seed-vessel; generally many-seeded.

CARPEL; a modified leaf; one of the segments of an ovary or capsule. An ovary may consist of one carpel only.

CATKIN; a unisexual spike of crowded flowers in bracts.

Channelled; grooved like a gutter.
CIRCINATE; rolled up like a crosier.
CLAW; the long narrow lower portion of the petal of some flowers.

CLAWED; (petal) having a long narrow base. CLEFT; deeply divided, nearly to the midrib.

CLUSTER; an apparently promiscuous collection of similar parts; in Ferns the patches of capsules.

COHERING; united together.

COMMISSURE; the inner sides of the carpels of Umbelliferæ, in contact with each other.

COMPRESSED; flattened laterally. CONDUPLICATE; folded lengthwise.

CONE; the fruit of a Fir-tree. CONICAL; shaped like a sugar-loaf.

CONNATE; when two like parts (as leaves) are connected at their bases.

Converging; the ends or points gradually approaching.

CORDATE; heart-shaped; with the point of attachment between the lobes. COROLLA; the whorl of floral leaves between the calyx and stamens, usually coloured, the separate pieces of which are called petals.

CORYMB; a raceme in which the stalks of the flowers are so proportioned in length that the flowers all come to nearly the same level.

CORYMBOSE; having the form of a corymb.

Cotyledons; the seed lobes; the rudimentary leaves of an embryo which develope into the first leaves of the young plant.

CRENATE; with convex marginal teeth.

CYLINDRICAL; terete; in the form of a cylinder. Example, the stems of Grasses.

CYME: a form of infloresceuce in which the central flowers open first, and the others in succession; usually in appearance like an umbel, but with branched stalks, as in the Elder.

Deciduous; falling off; said of organs which ultimately detach themselves after fulfilling their functions.

DENTATE; toothed.

DICHOTOMOUS; forked; branching in pairs.

DIDYMOUS; twin; growing in pairs. Example, the fruit of the Galium. DIDYNAMOUS; having 4 stamens, 2 of which are longer than the others.

DIECTOUS; having the male and female flowers produced on different plants.

Disk; the thickened or fleshy part to which the stamens and pistils are attached; or the annular or scaly elevation between them; the central part of a head in Compositæ, consisting of tubular florets.

DISSEPIMENTS; divisions in the ovary; septa.

DORSAL; belonging to the back.

DRUPE; a fleshy fruit, superior, containing a 1- or 2-seeded stony nut.

ELLIPTIC; oval, but with more acute ends.

EMARGINATE; notched at the end.

Embero; the rudimentary plant contained in the seed.

Entire; having no marginal lobes or teeth. ERECT; standing perpendicular from its base.

EXSTIPULATE; without stipules.

Family; (= Order) a group of plants composed of allied genera.

FIBRE; a thread-like kind of structure.

FIBROUS; composed of fibres.

FILAMENT; the stalk of an anther. FILIFORM; slender, like a thread.

FLORETS; the individual flowers contained in the head of a Composite flower, or in the spikelet of a Grass or Sedge.

FOLLICLE; a fruit formed of a single carpel; 1-celled, opening on one side only, and containing many seeds.

FORKED; divided like the prongs of a fork. FREE; unconnected except at the base. FROND; the leaf-like part of a Fern. FRUIT; the matured seed-vessel.

GIBBOUS: swollen.

GLABROUS: having a smooth surface, without hairs or other appendages.

GLAND; a wart-like secreting swelling.

GLANDULAR; having glands.

GLAUCOUS; covered with a bloom like the grape.

GLOBULAR; spherical, or nearly so.

GLUMES; the exterior series of the bracts which constitute the flower of a Grass, i. e. the bracts enclosing the spikelets of flowers; the imbricated bracts enclosing the flowers of Sedges.

GRANULATED; having a rough surface, as if formed of grains.

HASTATE; in the form of a halbert; having two diverging lobes, one on each side of the base of the leaf.

HEAD; a close collection of flowers surrounded by an involucre.

HERB; a plant with an annual stem.

HERMAPHRODITE; having both sexes (stamens and pistils) in the same flower.

HOODED; arched like a cowl.

HYPOGYNOUS; attached below the base of the ovary, and not on the calyx.

IMBRICATE; overlapping each other, like the tiles of a roof.

INCUMBENT; said of an embryo when the radicle is folded down upon the back of the cotyledons.

INDUSIUM; a thin membrane covering the clusters of capsules in Ferns. INFERIOR; a calyx, corolla, or perianth is said to be inferior when it is attached below the ovary and free from it. The ovary is said to be inferior when it is attached below the flower, which latter, therefore, stands upon the ovary.

INFLEXED; curved inwards.

INFLORESCENCE; the general arrangement of the flowers.
INSERTED; attached to, growing upon.
INVOLUCRE; the ring of bracts at the base of a head or umbel; or below the calyx in a simple flower. A partial involucre is the involucre at the base of a partial umbel; a general involucre is the involucre at the base of a general umbel.

IRREGULAR; having the lobes unequal; wanting regularity or symmetry in

form.

KEEL: a prominent ridge. In the Pea-flower the two connected petals.

LABIATE; an irregular monopetalous corolla, with two lips and an open throat.

LANCEOLATE; narrowly elliptical and tapering at each end.

LEAFLET; one of the divisions of a compound leaf.

LEGUME; a 1-celled seed-vessel, with two valves and the seeds attached to the ventral suture.

LINEAR; very long and narrow, with the sides parallel, or nearly so.

Life; the principal lobes or portions of a corolla or a calyx.

Lobes; the large segments of a leaf, or the segments of a corolla or calyx.

N.B.—In this work, when the word "lobe" is applied to the free parts or divisions of the floral leaves composing a calyx, corolla, or perianth, it includes those free parts or divisions without regard to the length they may bear to the whole length of the organ of which they form part.

LYRATE; a pinnatifid leaf with one large terminal lobe and several smaller lateral lobes.

MEMBRANOUS; thin and pliant; semi-transparent.

MONILIFORM: like a string of beads.

Monoperalous; having the petals united at their bases so as to be in one

MUCRONATE; abruptly terminating in a short point.

Mucus; a viscid fluid.

Nut: a hard, dry, 1-seeded superior fruit; or a hard, dry, 1- or few-seeded fruit (indehiscent) seated in an involucre. Example, Hazel-nut.

OB; in composition means that the thing signified is inverted, as an obcordate leaf is a cordate leaf attached by its narrow end, like the leaflets of the white clover.

OBLIQUE; unequal sided.

OBLONG; a long obtuse ellipse.

Opposite; leaves in pairs placed opposite to each other, or in a flower, the organs of a different whorl placed the one in front of the other.

Orbicular; circular, or nearly so.

OVARY; the seed-vessel in a young or immature state. . OVATE; egg-shaped (flat), attached by its broader end.

Ovoid; egg-shaped (solid).

PALEE; the scales in a Grass immediately enclosing the stamens, pistils, and hypogynous scales.

PALMATE; a leaf or a tuber with its lobes disposed or spreading in the manner of the fingers of a hand.

Panicle; a raceme with branched pedicels.

Papilionaceous; butterfly-shaped, like the flower of a Pea.

PAPPUS; the hairs or scales which crown the fruit of Composite plants. PARASITE; a plant that grows upon, and receives its nourishment from, another plant.

PARIETAL (placenta); when the ovules or seeds are attached to the inner surface or lining of an ovary or seed-vessel.

PATENT; spreading widely.

PECTINATE; pinnatifid, with the segments very narrow and parallel.

PEDICEL; the branch of a peduncle; the particular stalk of each flower. PELTATE; a leaf circular or nearly so in outline, with its stalk attached at

or near the centre.

PENDULOUS; seeds hanging from the top of an ovary or seed-vessel.

PERFOLIATE; when the leaf surrounds the stem so that the latter appears to pass through it.

PERIANTH; the floral whorl in which the calyx and corolla are not readily distinguished the one from the other.

Perigynous; having the corolla and stamens attached to the calyx, but free from the ovary.

Persistent; not falling off, even when withered.

PERSONATE; an irregular monopetalous 2-lipped corolla, with its lips close compressed.

Petals; the separate pieces or divisions of a corolla.

Petiole; the stalk of a leaf.
Pinne; the segments of a pinnate leaf.

PINNATE; when the leaflets are arranged on opposite sides of a common stalk. A leaf is 2- or 3-pinnate when its first and second divisions are pinnate.

PINNATIFID; when the leaf is deeply cleft in a pinnate manner, but not divided quite to the midrib.

PINNULÆ; the segments of a bipinnate leaf.

PISTIL; the female organ of flowering plants, usually consisting of ovary, style, and stigma.

PLACENTA; the part of the ovary or seed-vessel to which the ovules or seeds are attached.

Pop; a 1-celled, 2-valved seed-vessel, with the seeds attached along the ventral suture.

POLYGAMOUS; having male, female, and hermaphrodite flowers on the same plant.

POLYPETALOUS; having the corolla composed of separate petals.

Pome; an apple or similar fruit.

Pores; small roundish openings or holes.

PRICKLES; sharply-pointed conical elevations arising from the epidermis, not from the wood.

PRICKLY; having prickles.

Pubescence; closely adpressed short and soft hairs.

PUBESCENT: having the surface covered with short and soft hairs.

QUADRANGULAR; (stem) 4-angled or 4-sided. QUINATE; having the parts arranged in fives.

RACEME; an inflorescence in which the flowers are arranged singly on distinct pedicels along a common axis, as in the Red Currant; a spike with stalked flowers.

RACHIS; the central stalk of some kinds of inflorescence; in Grasses, the main stalk to the spikelets; the midrib above the lowest pinnæ in the fronds of Ferns.

RADIATE; having the parts diverging like rays.
RADICAL; (leaves) springing from the crown of the root.
RAMOSE; stem or branch divided into many branches.

RAYS; parts diverging from a centre, and forming a circular outline like the spokes of a wheel.

RECURVED; curved gradually backwards.

REFLEXED: bent quite back. RENIFORM: kidney-shaped. REVOLUTE; rolled back.

RHIZOME: a prostrate rooting stem, growing more or less underground.

Ribs; prominent veins.

RINGENT; a term applied to an irregular 2-lipped gaping eorolla.

ROOTSTOCK; a rhizome or tuber.

RUNCINATE; a pinnatifid leaf, with the lateral lobes pointing backward toward the base.

SACCATE; having a bag or pouch. SAGITTATE: shaped like an arrow-head.

SALVER-SHAPED; a monopetalous corolla with a flat limb and a long tube.

SAMARA; a dry indehiscent winged fruit. Scarious; thin, dry, and semi-transparent. Secund; all turned in one direction.

SEED; the reproductive body containing the embryo of the new plant.

Sepals; the separate pieces or divisions of the calyx. SERRATE; toothed like a saw, teeth pointing forward.

SESSILE; without a stalk. SETACEOUS; bristle-like.

SHEATH; the lower part of a leaf or its stalk which wraps round the stem.

SIMPLE; in one piece; not compound nor branched.

SINUATE; } having a waved outline like an oak lcaf. SINUOUS;

Sori; the patches or clusters of capsules on the back of the fronds of Ferns.

SPADIX; a succulent spike enclosed in a spathe. SPATHE; a large bract enclosing an inflorescence.

SPATHULATE; battledore-shaped.

SPIKE; a long simple peduncle, with sessile flowers.

SPIKELET; the secondary spike of Grasses.

SPINE; a stiff, sharp, woody thorn.

Spinous; having spines.

SPUB; a tubular horn-shaped projection from the lower part of a petal or monopetalous corolla or calvx.

STAMEN; the male organ of a flower containing the pollen.

STIGMA; that part (generally the upper portion) of the style to which the pollen adheres.

STIPE; the stalk of Ferns.

STIPULES; more or less leaf-like appendages at the base of a leaf-stalk. STRIPES; the vittæ of Umbellifers; the oil receptacles in the fruit.
STYLE; the portion of the pistil between the ovary and the stigma; when

absent the stigma is sessile.

Sub; a prefix, meaning a near approach to.

SUBULATE; awl-shaped, tapering from the base to a fine point.

Superior; above another part; a calyx is superior when its tube is wholly attached to the ovary; a corolla or a perianth is superior when it is attached to the upper part of the ovary; an ovary is superior when it is free within the flower, the latter being attached beneath it.

SUTURE; the line of junction of two similar parts or organs.

TENDRIL; a twining, slender, thread-like organ by which some plants support themselves.

TERETE; circular in cross section, or nearly so.

TERMINAL; at the end.

TERNATE; arranged in threes.

THORN; an abortive branch, differing from the prickle by being in continuity with the wood of the stem.

THROAT; the mouth of the tube of a corolla or calyx.

TRIANGULAR; (stem) 3-angled and 3-sided. TRUNCATE; with an abrupt end, as if cut off.

Tube; (corolla) the tubular part of a monopetalous corolla.

TUBER; a swollen underground part of the stem.

Tubercles; warts.

Tuberous; like a tuber.

Tunio; a flask-shaped loose covering.

TURBINATE; top-shaped.

UMBEL; an inflorescence in which the pedicels proceed from the same point and the flowers all reach about the same level.

UNILATERAL; directed to one side.

URCEOLATE; pitcher-shaped.

VALVATE: touching each other by the margins only.

VALVES; the distinct portions of a seed-vessel which open like doors.

VERNATION; the disposition of the leaves in the bud.

VERSATILE: swinging freely from its point of attachment.

VILLOUS; covered with soft hair.

VITTE: oil ducts or canals in the fruit of Umbellifers.

Wedge-shaped; (leaf) when like a wedge and attached at its point.

WHORL; a ring of similar organs around an axis.

Whorled; arranged in whorls.

WINGED; (seed) a membranous border; (stem) a deep ridge or border.

SYMBOLICAL ILLUSTRATIONS.

→ Style.	₩ — Calyx.
— Stamen.	_ Superior ovary.
— Petal.	— Inferior ovary.
— Corolla-lobe.	— Dry fruit, 1- or 2-celled.‡
J — Sepal.	— Succulent fruit, 2-celled.
— Calyx-lobe.	— Herb.
Perianth-lobe.	- Shrub.
Regular* polypetalous corolla.	— Tree.
-{Irregular polypetalous corolla.	O — Male.
Regular * monopetalous corolla.	Q — Female.
-{Irregular monopetalous corolla.	Ф — Hermaphrodite.
Regular * corolla-like †	(d Q)— Monœcious.
-{Irregular corolla-like perianth.	♂:Q — Diœcious.
Calyx-like † perianth.	— Water.

ABBREVIATIONS.

The abbreviations may stand either for the singular or plural.

Alt Alternate.	Gl Glume.	Rad Radical.
Bet. Bract.	Inv Involucre.	Recept Receptacle.
Ber Berry.	L. Leaf.	Rud Rudiment.
Cal Calyx.	Low. Lower.	Sacc Saccate.
Cap Capsule.	Opp Opposite.	Sec Section.
Cor Corolla.	Out Outer.	Seg Segment.
Crim Crimson.	Ovy Ovary.	Stam Stamen.
Exstip. Exstipulate.	P. Inv. Partial Involucre.	Stip Stipule.
Fl Flower.	Pal Palea.	Succut Succulent.
Fr Fruit.	Pet Petal.	Up Upper.
Fruct. Fructification.	Prth Perianth.	Var Various.
G. Inv. General Involucre.	Purp Purple.	Yell Yellow.

^{*} In the analysis of Divisions (page 16) and the headings of the analysis of Orders (pp. 18 to 38), where the regular or irregular form of the flower is not under consideration, the illustration for the regular form is used.

† A perianth is said to be corolla-like when it is more or less bright-coloured; and calyx-like when it is green or dull-coloured.

I Dotting indicates that the part thereby represented may or may not be present.

NATURAL ORDERS OF BRITISH PLANTS.

FLOWERING PLANTS.

1.	RANUNCULACEÆ.
2.	BERBERIDACEÆ.
3.	NYMPHÆACEÆ.
4.	PAPAVERACEÆ.
5.	FUMARIACEÆ.
6.	CRUCIFERÆ.
7.	RESEDACEÆ.
8.	CISTACEÆ.
9.	VIOLACEÆ.
10.	DROSERACEÆ.
11.	FRANKENIACEÆ.
12.	POLYGALACEÆ.
13.	ELATINACEÆ.
14.	CARYOPHYLLACEA
15.	MALVACEÆ.
16.	TILIACEÆ. ·
17.	HYPERICACEÆ.
18.	ACERACEÆ.
19.	GERANIACEÆ.
	BAISAMINACEÆ.
21.	OXALIDACEÆ.
22.	LINACEÆ.
23.	CELASTRACEÆ.
24.	RHAMNACEÆ.
25.	LEGUMINOSÆ.
26.	ROSACEÆ.
27.	LYTHRACEÆ.

CLASS I. EXOGENS.	
28. TAMARISCACEÆ.	54. BORAGINACEÆ.
29. ONAGRACEÆ.	55. SOLANACEÆ.
30. HALORAGACEÆ.	56. OROBANCHACEÆ.
31. CUCURBITACEÆ.	57. SCROPHULARIACEÆ.
32. PORTULACEÆ.	58. LABIATÆ.
33. PARONYCHIACEÆ,	59. VERBENACEÆ.
34. CRASSULACEÆ.	60. LENTIBULARIACEÆ.
35. RIBESIACEÆ.	61. PRIMULACEÆ.
36. SAXIFRAGACEÆ.	62. PLUMBAGINACEÆ.
37. UMBELLIFERÆ.	63. PLANTAGINACEÆ.
38. HEDERACEÆ.	64. AMARANTHACEÆ.
39. CORNACEÆ.	65. CHENOPODIACEÆ.
40. LORANTHACEÆ.	66. POLYGONACEÆ.
41. CAPRIFOLIACEÆ.	67. ELÆAGNACEÆ.
42. Rubiaceæ.	68. THYMELACEÆ.
43. VALERIANACEÆ.	69. SANTALACEÆ.
44. DIPSACACEÆ.	70. ARISTOLOCHIACEÆ.
45. Compositæ.	71. EMPETRACEÆ.
46. CAMPANULACEÆ.	72. EUPHORBIACEÆ.
47. ERICACEÆ.	73. CERATOPHYLLACEÆ.
48. AQUIFOLIACEÆ.	74. CALLITRICHACEÆ.
49. Jasminaceæ.	75. URTICACEÆ.
50. APOCYNACEÆ.	76. CANNABINACEÆ.
51. GENTIANACEÆ.	77. ULMACEÆ.
52. POLEMONIACEÆ.	78. AMENTACEÆ.

CLASS II. ENDOGENS. 87. ASPARAGACEÆ.

88. LILIACEÆ.

81.	DIOSCOREACEÆ.
82.	HYDROCHARIDACEÆ
83.	ORCHIDACEÆ.
84.	IRIDACEÆ.
85.	AMARYLLIDACEÆ,

80. TRILLIACEÆ.

90. JUNCACEÆ. 91. ERIOCAULACEÆ.

92. TYPHACEÆ.

93. ARACEÆ. 94. LEMNACEÆ.

89. MELANTHACEÆ. 95. POTAMOGETONACEÆ.

96. NAIADACEÆ. 97. CYPERACEÆ.

98. GRAMINEÆ.

FLOWERLESS PLANTS.

CLASS III. ACROGENS.

99. EQUISETACEÆ. 100. CHARACEÆ.

86. ALISMACEÆ.

101. LYCOPODIACEÆ. 103. FILICES.

102. MARSILEACEÆ.

53. CONVOLVULACEÆ, 79. CONIFERÆ,

PHÆNOGAMEÆ. (% LEITHER OR BOTH PRESENT.)

	CLASS I. EXOGENÆ	CLASS II. ENDOGENÆ
1		
2	*	X
3	D \$\pi_2,5, or their multiples.	3 or ils multiples.
4		
5		
6	or or	V
7	* B1	8-
8	or J	
9	& a or	&
10	J or W	

CRYPTOGAMER. (T) BOTH ABSENT.)

CLASS III. ACROGENÆ

FLOWERING PLANTS. (STAMENS AND PISTILS EITHER) OR BOTH PRESENT.

	CLASS I. EXOGENS.	CLASS II. ENDOGENS.
1	Stem, when perennial, formed of bark, wood, and pith; having medullary rays; and increasing externally by concentric layers.	Stem without distinct bark, wood, and pith; consisting of cellular tissue with vascular bundles em- bedded irregularly in it.
2	Embryo with 2 (or more) coty- ledons.	Embryo with 1 cotyledon.
3	Sepals, petals, and stamens, 2, 5, or their multiples.	Perianth-lobes and stamens 3 or its multiples.
4	Leaves net-veined.	Leaves parallel-veined.
5	Leaves either entire, toothed, lobed, pinnate, or variously divided.	Leaves entire.
6	Leaves alternate or opposite.	Leaves alternate.
7	Leaves articulated with the stem and deciduous.	Leaves in one with the stem and persistent.
8	Leaves with or without stipules.	Leaves without stipules.
9	Herbs, shrubs, or trees.	Herbs.
10	Stem simple or branched.	Stem simple.

FLOWERLESS PLANTS. (STAMENS AND PISTILS)

CLASS III. ACROGENS.

PHÆNOGAMEÆ.

CLASS I. EXOGENÆ.				
	institution in	W	I	
· · · · · · · · · · · · · · · · · · ·		W.	M	
m * J		23		
***********		ŽŽ	IV	
W or	. K	y or 0	A	
Class II. ENDOGENÆ.				
	7	Yor Wor 0	VII	
1		W or W	VIII	
		m or 0	VIII	
			IX	

CRYPTOGAMEAE.

CLASS III. ACROGENÆ.	
Leaves none. Stem or	X
Leares \int to	M

FLOWERING PLANTS.

CLASS I. EXOGENS.				
Flowers with both calyx and corolla (mono- or poly-petalous).		Corolla polypetalous, inferior	I.	
		Do. superior	II.	
		Corolla monopetalous, superior	III.	
		Do. inferior	IV.	
Flowers with corolla-like * or calyx-like * perianth, or naked				
CLASS II. ENDOGENS.				
Leaves net-veined	Flowers with corolla-like or calyx-like perianth, or naked			
Flowers with calyx and corolla, or corolla-like perianth			VII.	
Leaves parallel-veined Flowers with calyx-like perianth, or naked				
	Flowers in i	imbricated bracts	IX.	

^{*} A perianth is said to be corolla-like when it is more or less bright-coloured; and calyx-like when it is green or dull-coloured.

FLOWERLESS PLANTS.

CLASS III. ACROGENS.	
Leaves none. Stem simple or with whorled branches	X.
Leaves (or fronds) varying from simple to 2- or 3-pinnate	XI.

PHÆNOGAMEÆ. CLASSI. EXOGENÆ.

DIV. I. Y				
J:2 3 \$	L. D	3 3/ W		71. EMPETRACEÆ.
J: 2 /4 /		4) 0)4		24. RHAMNACEÆ.
		9 D.2		24. Do.
4ors	Dor &	8 Pas	8	23. CELASTRACEÆ.
	A STATE OF THE PARTY OF THE PAR	8 %		28. Tamariscace
06		Pr. J		2. BERBERIDACEÆ.
about 8	Ropp (S	Pr.		18. Aceracea.
10 in 1 set	1 Jor &	PIO Fr.	0	25. LEGUMINOSÆ.
many in Sorssets	A to Dopp.	Yor Fl. yell	3ars Gills	17. HYPERICACEAL.
many in I set	Dat.	101	8-20 6115	15. MALVACEÆ.
	Ato Dopp	Cal. W-3		8. CISTACEAL.
	(R)	10 Per	0	16. TILIACEÆ.
many	Bto B	Sor O		26. ROSACEÆ.
	Port	6	many	26. Do.
	\$ 500			26. Do.

FLOWERING PLANTS.

CLASS I. EXOGENS.

DIV. I.

Flowers with both calyx and corolla. Corolla polypetalous, inferior. 1^{ety} Trees or Shrubs.

Diœcious. Stamens 3. Style 1, stigma 9-rayed. Leaves linear-oblong.	FAMILY.
Petals 3. Sepals 3. Ovary 9-celled, cells 1-seeded. Berry 1-celled, many-seeded	71. Crowberry.
Diœcious. Stamens 4. Styles 4, partly united. Leaves ovate, finely serrated.	
Sepals 4. Stamens 4, opposite the petals.	04 P141
Berry 4-celled, cells 1-seeded Stamens 4 or 5 (hermaphrodite).	24. Buckthorn.
Leaves obovate, entire.	
Style 1. Stamens 5, opposite the petals.	04 D.
Berry 2-celled, cells 1-seeded	24. Do.
Styles 1 or 2. Stamens 4 or 5, alternating with	
the petals. Capsule 2- or 4-celled, 4-seeded	23. Spindle-tree.
Leaves minute, scale-like. Styles 3, thick. Stam. 5. Cap. 1-celled, many-seeded	28. Tamarisk.
Styles 5, thick. Stam. 5. Cap. 1-cened, many-seeded Stamens 6.	So. Lamaiisk.
Leaves obovate, sharply toothed.	
Stamens opposite to the petals; anthers opening by	
valves attached to the top. Berry oblong, 2- or 3-seeded	2. Barberry.
Stamens about 8.	a. Darberry.
Leaves lobed, opposite.	40 75 .
Fruit winged, 2-celled, cells 1- or 2-seeded	18. Maple.
Stamens 10, in one set. Leaves awl-shaped, lanceolate, or ternate.	
Flowers irregular, papilionaceous. Fruit a legume,	
with the placenta on the upper suture	25. Peaflower.
Stamens many, in 3 or 5 sets. Leaves varying from linear to ovate; entire, opposite.	THE RESERVE OF THE PARTY OF THE
Styles 3 or 5. Flowers yellow.	* ST 8 - 8 - 51
Capsule 3- or 5-celled, cells many-seeded	17. St. John's Wort.
Stamens many, in 1 set.	
Leaves lobed, stipulate, alternate. Sepals valvate in the bud. Styles many, partly united.	
Fruit 8- to 20-celled, cells 1-seeded	15. Mallow.
Stamens many, filaments free.	
Leaves varying from linear to ovate; entire, opposite.	
Calyx of 3 large and 2 or 0 small sepals. Capsule imperfectly 3-celled, seeds several	8. Rock-rose.
Leaves obliquely cordate, with decidnous stipules.	O. AUUCK TUSC.
Sepals valvate in the bud. Flowers on a bract.	10 7
Ovary 6-celled, cells 2-seeded. Fruit 1- or 2-seeded	16. Lime.
Leaves varying from lanceolate to ovate, toothed, with deciduous stipules.	
Fruit a drupe (a cherry or plum)	26. Rose.
Leaves ternate or quinate, toothed, stipulate.	
Fruit, granulated, consisting of many small drupes	26. Do.
Leaves pinnate, toothed, stipulate; leaflets 5 to 9. Fruit many hairy nuts enclosed in a fleshy calyx-tube	26. Do.
	201

DIV.I. X 2 NDLY & COROLO CORO				
	Stam. 5	5) Spur		9. VIOLACEÆ
	24	200 Pet.4	O or A	5. FUMARIACEÆ.
V	allor 9 united	Pet.5	(30000) (3)	25. LEGUMINOSÆ.
	o many	Pl.yellowish green or white		7. Resedacer.
	matary	Il. blue or purp.	JI.S	1. RANUNCULACEÆ.
	Succulent plants	3-40 /3-20	3-10	34. CRASSULACEÆ.
	94	4	7	2. BERBERIDACEÆ.
	Ø,		對勞	10. Droserace.
		(See Nº 14-33)	0 3	36. Saxifragaceæ.
	\$ 0 8 2	4 W		6. CRUCIFERÆ.
0	Ø 6	₹		11. FRANKENIACEÆ.
		many 8	100	3. NYMPHÆACEÆ.
		Cal. 🕥	4	4. Papaveraceæ.
		Cal. W 3 zaro	5	8. CISTACEÆ.
		D L.stip.	Fr. I or more	26. Rosaceæ.
(See NºAS)		L. existip	Do.	1. RANUNCULACEÆ.

DIV. I. Flowers with both calyx and corolla. Corolla polypetalous, inferior. 2^{ndly} Herbs. Ovaries many, each bearing a style; or solitary with 1 or more placentas, parietal or on the dissepiments, not forming a central axis.

Stamens 5, cohering, 2-spurred. Sepals 5, saccate at base. Petals 5, lower one spurred. Capsule with 3 placentas, many-seeded Stamens 6, diadelphous, anthers 4 1-celled and 2 2-celled. Sepals 2 or none. Petals 4, parallel, 1 gibbous or spurred. Fruit a 1-seeded nut, or a several-seeded pod Stamens 10, all or 9 united. Corolla papilionaceous (peaflower shape). Fruit a legume, long or short; placenta on the upper suture Stamens many. Flowers yellowish-green or white. Fruit with 3 placentas, many-seeded Flowers blue or purple. Fruit 1 to 5 follicles, seeds many Corolla regular. (See No. 45.) Succulent plants. Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20. Fruit 3 to 10 follicles Stamens 4. Petals 4. Stamens opposite to the petals; anthers opening by valves attached to the top Stigmas 4, seessile. Scales 5, bearing glandular bristles Stigmas 4, seessile. Scales 5, bearing glandular bristles Stamens 6, 4 longer than the 2 others. Petals 4. Sepals 4. Ovary 2-celled by false septum Stamens 6, equal. Petals 5. Calyx tubular, with 5 teeth. Capsule with 3 placentas, many-seeded Stamens many. Petals and placentas, many-seeded Stamens prigynous (inserted at the base of the sepals). Leaves stipulate. Fruit 1 or more nuts or follicles Stamens hypogynous (attached below the ovary). Leaves exstipulate. Fruit 1 or more nuts or follicles Stamens hypogynous (attached below the ovary). Leaves exstipulate. Fruit 1 or more nuts or follicles 1. Buttercup.	Corolla irregular.	FAMILY.
2-celled. Sepals 2 or none. Petals 4, parallel, 1 gibbous or spurred. Fruit a 1-seeded nut, or a several-seeded pod Stamens 10, all or 9 united. Corolla papilionaceous (peaflower shape). Fruit a legume, long or short; placenta on the upper suture	Sepals 5, saccate at base. Petals 5, lower one spurred.	9. Violet.
Stamens 10, all or 9 united. Corolla papilionaceous (peaflower shape). Fruit a legume, long or short; placenta on the upper suture		
Stamens 10, all or 9 united. Corolla papilionaccous (peaflower shape). Fruit a legume, long or short; placenta on the upper suture	spurred.	5. Fumitory.
Stamens many. Flowers yellowish-green or white. Fruit with 3 placentas, many-seeded	Corolla papilionaceous (peaflower shape).	
Flowers yellowish-green or white. Fruit with 3 placentas, many-seeded Flowers blue or purple. Fruit 1 to 5 follicles, seeds many Corolla regular. (See No. 45.) Succulent plants. Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20. Fruit 3 to 10 follicles Stamens 4. Petals 4. Stamens opposite to the petals; anthers opening by valves attached to the top Stamens 5. Petals 5. (See Nos. 1 and 33.) Styles 3, bifid. Leaves with a circinate vernation, covered with glandular hairs Stigmas 4, sessile. Scales 5, bearing glandular bristles Stamens 6, 4 longer than the 2 others. Petals 4. Sepals 4. Ovary 2-celled by false septum Stamens 6, equal. Petals 5. Calyx tubular, with 5 teeth. Capsule with 3 placentas, many-seeded Stamens many. Petals many, passing gradually into stamens. Water plants, leaves floating Petals 4 Calyx of 2 sepals. Petals 5 Stamens perigynous (inserted at the base of the sepals). Leaves stipulate. Fruit 1 or more nuts or follicles Stamens hypogynous (attached below the ovary). Leaves exstipulate.	upper suture	25. Peaflower.
Corolla regular. (See No. 45.) Succulent plants. Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20. Fruit 3 to 10 follicles	Flowers yellowish-green or white. Fruit with 3 placentas, many-seeded	7. Mignonette.
Succulent plants. Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20. Fruit 3 to 10 follicles		1. Buttercup.
Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20. Fruit 3 to 10 follicles		
Stamens 4. Petals 4. Stamens opposite to the petals; anthers opening by valves attached to the top	Stamens 3 to 40, inserted at the base of the sepals. Sepals 3 to 20.	34 Stone over
Stamens opposite to the petals; anthers opening by valves attached to the top	Stamens 4.	or. Stonecrop.
Petals 5. (See Nos. 1 and 33.) Styles 3, bifid. Leaves with a circinate vernation, covered with glandular hairs Stigmas 4, sessile. Scales 5, bearing glandular bristles	Stamens opposite to the petals; anthers opening	2. Barberry.
tion, covered with glandular hairs Stigmas 4, sessile. Scales 5, bearing glandular bristles		
Stamens 6, 4 longer than the 2 others. Petals 4. Sepals 4. Ovary 2-celled by false septum	tion, covered with glandular hairs	10. Sundew.
Petals 4. Sepals 4. Ovary 2-celled by false septum	bristles	36. Saxifrage.
Stamens 6, equal. Petals 5. Calyx tubular, with 5 teeth. Capsule with 3 placentas, many-seeded Stamens many. Petals many, passing gradually into stamens. Water plants, leaves floating	Petals 4. Sepals 4.	0. 0
Capsule with 3 placentas, many-seeded Stamens many. Petals many, passing gradually into stamens. Water plants, leaves floating	Stamens 6, equal.	6. Crucifer.
Petals many, passing gradually into stamens. Water plants, leaves floating	Capsule with 3 placentas, many-seeded	11. Sea-heath.
Petals 4	Petals many, passing gradually into stamens.	3 Water-lily
Calyx of 3 large and 2 or 0 small sepals. Petals 5		
Stamens perigynous (inserted at the base of the sepals). Leaves stipulate. Fruit 1 or more nuts or follicles	Calyx of 3 large and 2 or 0 small sepals.	
Stamens hypogynous (attached below the ovary). Leaves exstipulate.	Stamens perigynous (inserted at the base of the sepals). Leaves stipulate.	
	Stamens hypogynous (attached below the ovary).	26. Rose.
		1. Buttercup.

DIV. I. 3 POLY & TO				
	0	Calyx	95	33. PARONYCHIACEÆ.
•	(36)	W	O)3 or 5	32. PORTULACEÆ.
		W Wor !	105 L.	14. CARYOPHYLLACEÆ.
		Fl.	Stain.	12. POLYGALACEÆ.
1		8	O 6 Por 12 Por	27. LYTHRACEÆ.
	900	R	φ, ω	36. Saxifragaceæ.
		S	many zoro	8. CISTACEÆ
		V	manyin 3 seis Yell.	17. HYPERICACEÆ.
		O	96	13. Elatinaceæ.
\oplus		(See 27:80)	10	13. Do.
		B	or stip.	19. GERANIACEÆ.
		FI SSpur	Stam.s Succu!	20. Balsaminaceæ.
8)	L. \$	95 95 W	21. OXALIDACEÆ.
	(SOUS)	L. none. (Scales)	980110 S	47. ERICACEÆ.
		Porp	910 \$	47. Do.
8		\$ to \$	Par W	22. LINACEÆ.
S-20 Cells		O lobes var.	many in Iset	15. MALVACEÆ.

DIV. I.

Flowers with both calyx and corolla. Corolla polypetalous, inferior. 3^{rdly} Herbs. Ovary solitary, 1- to 20-celled; placenta central (i. e. forming a central axis).

	FAMILY.
Ovary 1-celled. Cell 1-seeded.	
Calyx of 5 sepals. Stamens 5	33. Paronychia.
Calyx of 2 sepals. Stamens 3 or 5	32. Purslane.
Cell many-seeded. Calyx of 4 or 5 sepals, or tubular. Stamens 10, 5,	
or 4. Leaves opposite, entire; varying from	
	14. Pink.
Ovary 2-celled. Cells 1-seeded.	
Flowers irregular, Stamens 8 in 2 clusters. An-	10 75:11
thers opening by pores	12. Milkwort.
Style 1. Stamens 6 to 12. Calyx tubular or bell-	OF Township
shaped, with teeth between the lobes Styles 2. Stamens 10. Calyx of 5 sepals	27. Loosestrife. 36. Saxifrage.
Ovary 3-celled.	our summings,
Cells many-seeded.	
Style 1. Stamens many. Calyx of 3 large and 2 or 0	
small sepals	8. Rock-rose.
Styles 3. Stamens many, in 3 sets. Flowers yellow	17. St. John's Wort.
Stamens 6. Submerged water-plants	17. St. John's Wort. 13. Waterwort.
Ovary 4-celled. Cells many-seeded.	
Styles 4. (See No. 80.)	
	13. Do.
Ovary 5-celled. Cells 1-seeded.	
Fruit with a long beak. Stamens 5 or 10, mona-	10 0
delphous. Leaves opposite, stipulate	19. Geranium.
Flowers irregular, spurred.	00 7.1
Stamens 5; anthers cohering. Succulent plants Leaves ternate, stipulate.	20. Balsam.
Stamens 5 long and 5 short. Styles 5	21. Wood-sorrel.
Leaves none, scales. Stamens 8 or 10; anthers opening by a trans-	
verse fissure. Stigma peltate	47. Heath.
Leaves roundish or ovate. Stamens 10; anthers opening by pores. Stigma	
5-lobed	47. Do.
Ovary with 4 or 5 complete, and 4 or 5 incomplete dis-	
sepiments. Cells (spurious) 1-seeded.	
Leaves varying from linear to obovate.	22. Flax.
Stamens 4 or 5. Styles 4 or 5 Ovary 8- to 20-celled,	NN. FIGA.
Cells 1-seeded.	
Sepals valvate in the bud. Leaves alternate, stipulate; lower variously lobed. Stamens many, in	
1 set. Styles many, united at the base	15. Mallow.

Dr	Div. II.				
700	Stam.	0		40. LORANTHACEÆ.	
	94	8	0	39. CORNACEÆ.	
200	0 5	0 34:		38. HEDERACEÆ.	
2804(2)	3	X or X		35. RIBESIACEÆ.	
	many	15 Cella	r 🚳	26. ROSACEÆ.	
(dp)	08	8	<u>60</u>	30. HALORAGACEÆ.	
	Psorz	8		29. ONAGRACEÆ.	
	95	X	00	37. UMBELLIFERÆ.	
(SeeX?39)	φ,0	8		36. SAXIFRAGACEÆ.	

Div. III.				
8	4ors	L.opp.		41. CAPRIFOLIACEÆ.
	Georio	L.alt.		47. ERICACEÆ.
	W Ior3	0	r 🎱	43. VALERIANACEÆ.
	0)4	PLAN	0	44. DIPSACACEÆ.
		I. \$410	00	42. RUBIACEÆ.
1	(See 29 42)	to	,	46. CAMPANULACEÆ.
	m	Fl.F		46. Do.
	M	FL	0	45. COMPOSITÆ.
(See No.41)	Stam.	200 p		31. CUCURBITACEÆ.

DIV. II. { Flowers with both calyx and corolla. Corolla polypetalous, superior.

Shrubs, parasitical on trees, diœcious. Stamens 4; anthers sessile, many-celled.	FAMILY.
Stigma 1, sessile. Berry 1-seeded	40. Mistletoe.
Shrubs (not parasitical).	
Stamens 4.	
Style 1. Drupe with a 2-celled nut, cells 1-seeded	39. Dog-wood.
Stamens 5.	co. 2 og mooa.
Styles united in one. Flowers in globose umbels.	
Berry 3- to 5-seeded	38. Ivy.
Style 2- or 4-cleft. Berry many-seeded, filled with	
pulp; placentas 2, parietal	35. Currant.
Stamens many.	
Fruit a 1- to 5-celled pome; or several small nuts	
enclosed in the fleshy calyx-tube	26. Rose.
Herbs; submerged water-plants, monœcious.	
Stamens 8.	
Styles 4, villose. Fruit separating into 4 nuts	30. Mare's-tail.
Herbs (terrestrial). (See No. 39.)	H H
Stamens 8 or 2.	
Style 1. Capsule 4-celled, cells many-seeded; or	
1- or 2-celled, cells 1-seeded	29. Willow-herb.
Stamens 5.	
Styles 2. Ovary 2-celled, cells 1-seeded	37. Umbellate.
Stamens 10.	
Styles 2. Capsule 2-celled, cells many-seeded	36. Saxifrage.

DIV. III. { Flowers with both calyx and corolla. Corolla monopetalous, superior.

Shrubs.	FAMILY.
Stamens 4 or 5.	
Leaves opposite. Fruit generally fleshy, 1- to	
5-celled, cells 1- (rarely many-) seeded	41. Honeysuckle.
Stamens 8 or 10; anthers opening by pores, often awned.	
Leaves alternate. Berry 4- or 5-celled, cells many-	
seeded	47. Heath.
Herbs. (See No. 41.)	
Stamens 1 or 3.	
Fruit 1-celled, 1-seeded; or 3-celled, 1 fertile and	
	43. Valerian.
Stamens 4.	44 100
Flowers in heads. Fruit 1-celled, 1-seeded	44. Teasel.
Leaves in whorls of 4 to 10 leaflets. Fruit didym-	40 37 11
ous (rarely succulent), cells 1-seeded	42. Madder.
Stamens 5, free. (See No. 42.)	40 7 11 0
Capsule 2- to 5-celled, cells many-seeded	46. Bell-flower.
Stamens 5; anthers united into a tube. Flowers in racemes.	
	40 D.
Capsule 2- or 3-celled, cells many-seeded Flowers in heads.	46. Do.
	AE Comments
Fruit 1-celled, 1-seeded Stamens 5, sinuous, in 3 bundles.	45. Composite.
Plant with lobed leaves and tendrils. Diacious.	
D 0 4 0 1 1	31. Gourd.
Berry 3- to b-seeded	or. Goura.

DI	v. IV.		M.	
0	φ ²	cor: O		49. JASMINACEÆ.
ar	4ors	Cor. O		48. AQUIFOLIACEÆ.
	980r10	of pores	Dor Co	47. ERICACEÆ.
	Stam.	Sep-	(4)	12. POLYGALACEE.
	Ø 3	Cal.	3	32.Portulacea.
	φ ₂	Cor.		60. LENTIBULARIACEÆ
	φφ _{mm}	L.none (scales)		56. OROBANCHACEÆ.
		À FZ.	00	59. VERBENACEÆ.
	op op or or or s	Stem Lopp.		58. LABIATÆ.
	or or	Lalt. or opp.		57. SCROPHULARIACEÆ
	P	4.5 or7		61. PRIMULACEÆ.
	88	*		63. PLANTAGINACEÆ.
	(L.rar)	95 8	0	62. PLUMBAGINACEÆ.
	BAR	とう 夢	9	50. Apocynacea.
* Ch	(Lrar.)	04,5. or8		51. GENTIANACEÆ.
y U		Yarx	000	53. CONVOLVULACEÆ.
	9	T The		52 POLEMONIACEA.
	15	4		54 BORAGINACEÆ.
		Jorj	O OT	55. SOLANACEÆ.
P.A.MEBSER, PEL	970	N N		34. CRASSULACEÆ.

DIV. IV. { Flowers with both calyx and corolla. Corolla monopetalous, inferior.

Trees or shrubs. Stamens 2.	FAMILY.
Corolla valvate in the bud. Berry 2-celled, cells	
1- or 2-seeded	49. Jessamine.
Stamens 4 or 5.	
Corolla imbricate in the bud. (See No. 47.) Fruit	48. Holly.
fleshy; seeds stony, 4 (or 5)	to. Hony.
Anthers opening by pores, with or without awns.	THE WATER
Fruit a 3- to 5-celled capsule, or a 4- to 5-celled	AW TT 13
berry; cells many- (rarely 1-) seeded	47. Heath.
Herbs. Corolla irregular. Stamens 8, in 2 clusters.	
Sepals irregular, 2 inner large, petal-like.	
Capsule 2-celled, cells 1-seeded	12. Milkwort.
Stamens 3.	00 D1
Calyx of 2 sepals. Capsule 1-celled, 3-seeded Stamens 2.	32. Purslane.
Corolla spurred. Capsule 1-celled, many-seeded;	
placenta, free, central	60. Butterwort.
Stamens 4, didynamous (2 longer than the 2 others).	
Leaves none (scales). Capsule 1-celled, many-	50 Drasman
seeded; placentas 2, parietal	56. Broomrape.
in a slender spike.	
Capsule separating into 4 1-seeded nuts	59. Vervain.
Stamens 4, didynamous, or 2 or 5.	
Style from the base of the 4-lobed ovary. Stem square.	
Leaves opposite. Capsule separating into 4	58. Labiate.
Style terminal. Leaves alternate or opposite.	
Capsule 2-celled, cells many- or 2-seeded	57. Figwort.
Herbs. Corolla regular.	
Stamens opposite to the lobes of the corolla. Stamens 4, 5, or 7. Style 1, stigma capitate. Cap-	
sule 1-celled, many- (or few-) seeded; placenta,	
free, central	61. Primrose.
Leaves radical (various).	
Stamens 4, corolla 4-lobed. Style 1. Capsule 1- to 4-celled, cells 1-seeded; or 2-celled,	
cells 4- to 8-seeded	63. Plantain.
Stamens 5. Styles 5. Capsule 1-celled, 1-seeded	63. Plantain. 62. Thrift.
Leaves opposite (various).	
Stamens 5, filaments bent. Stigma capitate, with	50. Periwinkle.
a ring at the base. Follicles 2, several-seeded Stamens 4, 5, or 8. Capsule 1- or 2-celled, by the	OU. I CHI WILLIAM.
inflexed margin of valves; many-seeded	51. Gentian.
Stamens 5.	
Style 1, stigmas 2; or styles 2. Capsule 4-seeded, 1- or 2-celled	53. Convolvulus.
Style 1, stigmas 3. Stamens unequal.	
Capsule 3-celled, many-seeded	52. Jacob's Ladder.
Style 1, from the base of the 4-lobed ovary.	54 Damana
Capsule separating into 4 1-seeded nuts Style 1, stigma simple or capitate.	54. Borage.
Berry or capsule, 2-celled, many-seeded	55. Nightshade.
Stamens 10.	9
Styles 5.	04 04
Fruit 5 follicles, many-seeded	34. Stonecrop.

DIV. V. WOR O 15TLY OR OR										
Jarq.	din s	(T) 02 T:2046		٥	I.] evergreen	79. CONIFERE.				
	Qin Ø	(ဝီဝ <u>)</u> ဝီးဝှ	9 4-12 1-30	X Yor W	I. not[]] deciduous	78. AMENTACEÆ.				
	O only	(TQ) 520		Yor	Do.	78. Po.				
		đ: p		0	L. Servigreen	79. Conifera.				
	M. not	(đ _Q)	O ₄	8		72. EUPHORBIACEÆ.				
			Ф3	*	1	71. EMPETRACEÆ.				
		₫:ᢩ০	Φ4	8		67. ELÆAGNACEÆ.				
			04	٥		40. LORANTHACEÆ.				
			P4	7	Ø	24 RHAMNACEÆ.				
TA MINES	Ø z	8		8		49. Jasminaceæ.				
	DA for s			8		24. Rhamnaceæ.				
		STE:		8		38. HEDERACEÆ.				
				8	-0-	77. ULMACEÆ.				
	To pop	*		8		68. THYMELACE Æ.				
	8	A		X		18. ACERACEÆ.				

DIV. V.

Flowers with corolla-like or calyx-like perianth, or naked.

1sty Trees or shrubs.

Flowers male or female.	FAMILY.
Males in catkins, and females in catkins. Monœcious: Anther-cells 2 (in each scale). Diœcious: Anther-cells 4 to 6 (in each scale). Style none. Leaves linear or subulate, entire, evergreen	79. Pine.
Styles 2 (simple or bifid) or 4. Leaves neither linear nor subulate, deciduous	78. Catkin.
Males only in catkins. Monœcious: Stamens 5 to 20. Styles 2 to 6. Leaves various	78. Do.
Styles none. Leaves linear, entire, evergreen Flowers not in catkins. Monœcious. Stamens 4.	79. Pine.
Styles 3. Leaves ovate-oblong Diœcious. Stamens 3. Style 1; stigmas rayed. Leaves linear-oblong,	72. Spurge.
covered with a scaly scurf	71. Crowberry. 67. Sallow-thorn.
Style 1; stigma sessile blunt. Leaves obovate-lanceolate obtuse Stamens 4; filaments longer than the anthers. Styles 4, partly united.	40. Mistletoe.
Leaves ovate-acuminate, finely toothed Flowers hermaphrodite.	24. Buckthorn.
Stamens 2. Fruit compressed, leaf-like at end (a samara). Style 1; stigma thickened. Fruit 1- or 2-celled, cells 1-seeded	49. Jessamine.
Stamens 4 or 5. Stamens alternating with the sepals. Style 1, short. Berry 2-celled, cells 1-seeded Flowers in globular umbels. Styles (5) united into one. Fruit 3- to 5-seeded,	24. Buckthorn.
a berry	38. Ivy. 77. Elm.
Stamens 8, in 2 rows. Perianth tubular, lobes 4 spreading. Style 1; stigma capitate. Fruit a 1-seeded berry	68. Daphne.
Stamens 8 (in 1 row). Fruit winged. Stigmas 2. Fruit 2-celled, cells 1- or 2-seeded	18. Maple.

IDAY. WOR O 2 NOLY									
		(♂♀)	O Joseph S	1-7	94. LEMNACEÆ.				
	₩ 3·5	\$° or (\$° Q)	97 X		30. Haloragaceæ.				
	彩彩	(đ ¢)	712 J		73. CERATOPHYLLACEAL				
	A	(đ ¢)	φ, <u>γ</u>		74. CALLITRICHACEÆ.				
L.none	Stem 3	₫			65. CHENOPODIACEÆ.				
	Stip.	7	~ X X		66. Polygonaceæ.				
		or of	07-4 07 20-30	7-5	26. Rosaceæ.				
L.stip.		\$ Q 00 Q	94 8 B World		75. URTICACEÆ.				
		₫	Ps York		33. Paronychiaceæ.				
		₫:0	\$ X 3₩9\$		76. CANNABINACEÆ.				

F. A. MESSER. DELT.

(Continued)

DIV. V.

Flowers with corolla-like or calyx-like perianth, or naked. 2^{ndly} Herbs.

Water plants, submerged or floating.	FAMILY.
Fronds leaf-like, sub-globular, obovate, or lanceolate.	
Monœcious,	
Stamens 1 or 2, with or without filaments.	
Fruit 1-celled, 1- to 7-seeded	94. Duckweed.
Leaves in whorls; 6 to 12 entire, or 3 to 5 pectinate.	
Hermaphrodite or Monœcious.	
Stamens 1 or 8. Styles 1 or 4. Fruit 1-celled, 1-seeded; or separating into	A TANK THE N
	30. Mare's-tail.
4 1-seeded nuts	ou. mare s-tan.
Monœcious.	
Stamens 12 to 20, sessile. Style 1.	
Fruit 1-celled, 1-seeded	73. Hornwort.
Leaves opposite (not in whorls) entire.	70. 1201HW010.
Mouœcious,	
Stamen 1. Styles 2.	
Fruit separating into 4 1-seeded nuts	74. Water Star-
Leaves none.	wort.
Stem succulent, jointed.	
Hermaphrodite.	
Stamens 1 or 2. Styles 2.	
Fruit 1-celled, 1-seeded	65. Goosefoot.
Leaves stipulate.	
Stipules sheathing the stem.	
Hermaphrodite.	
Stamens 5 to 8. Styles 2 or 3.	
Fruit 1-celled, 1-seeded, usually triangular	66. Dock.
Stipules adnate to the petiole (attached by one edge	
to leaf-stalk), and more or less toothed.	
Male, female, or hermaphrodite.	
Stamens 1 to 4, or 20 to 30. Style 1; stigma	
capitate or tufted.	26. Rose.
Fruit containing 1 to 5 nuts Stipules free (edges not attached to leaf-stalk), entire.	zo. Rose.
Male, female, or hermaphrodite.	
Stamens 4. Stigma tufted, sessile or on a style.	
Perianth 2- or 4-lobed.	
Fruit 1-celled, 1-seeded	75. Nettle.
Hermaphrodite.	
Stamens 5. Styles, or sessile stigmas 2 or 3.	
Perianth 5-lobed.	
Fruit 1-celled, 1-seeded	33. Paronychia.
Diœcious.	
Stamens 5. Styles 2.	
Male: Perianth 5-lobed. Female: Catkins.	
Fruit 1-celled, 1-seeded	76. Hop.
(0 1: 1)	

DIV. V. FOR MOR O 2 NDLY (CONTINUED)					
	0 0	Stam.		93. ARACEÆ.	
	E.F.O	736 York	88	72. EUPHORBIACEÆ.	
đơn.	0	93 8	0	64. Amaranthaceæ.	
dorg	Wg Ab	95 X	0	65. CHENOPODIACEÆ.	
		Stam.		31. CUCURBITACEÆ.	
(See N.75)		96 8		81. Dioscoreaceæ.	
	9	8 8		63. PLANTAGINACEA.	
	or or	Oor Wy		14. CARYOPHYLLACEÆ.	
	05	S A	**	61. PRIMULACEÆ.	
×	J.	W York	00	65. CHENOPODIACEÆ.	
	96	0		27. LYTHRACEÆ.	
	98	***		80. TRILLIAGEÆ.	
	many	\$20	or 3-10	1. RANUNCULACEÆ.	
	8	OB OF 12		70. ARISTOLOCHIACEÆ.	
	1	φ 4		29. ONAGRACEÆ.	
9	O .	O ₅	0	69. SANTALACEÆ.	
		Op.	(4)	37. UMBELLIFERÆ.	
	8	gs.		36. SAXIFRAGACEÆ.	
F.A.MESSER.DE		910, or 54 5	0	33. PARONYCHIACEÆ.	

DIV. V.

Flowers with corolla-like or calyx-like perianth, or naked. 2^{ndly} Herbs (continued).

Flowers male or female. (See No. 75.) Flowers in a spathe. Spadix with male fl. above female.	FAMILY.
Stamen 1, anther sessile. Stigma sessile. Berry 2- to 4-seeded	93. Arum.
remain 5-lobed; or a perianti-like involucie, cup- shaped, 4- or 5-lobed. Stamens 7 to 36. Styles 2 or 3.	
Capsule 2- or 3-celled, cells 1-seeded Perianth 3-lobed.	72. Spurge.
Stamens 3. Styles 3. Capsule 1-celled, 1-seeded	64. Amaranth.
Perianth 5-lobed in male, 2-lobed in female flowers. Stamens 5. Styles 2. Fruit 1-celled, 1-seeded	65. Goosefoot.
Perianth 5-lobed. Stamens 5, sinuous, in 3 bundles. Style 3-fid,	00. 000501000
stigmas 2-lobed. Berry 3- to 6-seeded	31. Gourd.
Perianth 6-lobed. Stamens 6. Styles or stigmas 3, reflexed. Berry imperfectly 3-celled, cells 2-seeded	81. Yam.
Ovary superior. Stamens 4.	oi. Iam.
Perianth 4-lobed, scarious. Style 1. Capsule 1- to 4-celled, cells 1-seeded; or 2-celled,	63. Plantain.
cells 4- to 8-seeded Stamens 4 or 10. Perianth 4- or 5-lobed. Styles 3 or 4.	65. Plantain.
Capsule 1-celled, many- (or few-) seeded Stamens 5.	14. Pink.
Perianth bell-shaped 5-lobed. Style 1. Capsule 1-celled, about 10-seeded.	61. Primrose.
Perianth 5-lobed. Styles 2 or 3. Fruit 1-celled, 1-seeded, dry or fleshy Stamens 6.	65. Goosefoot.
Perianth with 6 broad and 6 narrow lobes. Style short. Capsule 2-celled, cells many-seeded	27. Loosestrife.
Stamens 8. Perianth 8-lobed, 4 narrower than the others. Styles 4. Berry 4-celled, cells 6- to 8-seeded	80. Herb-Paris.
Stamens many. Fruits many 1-seeded, or 3 to 10 many-seeded	1. Buttercup.
Ovary inferior. Style 1; stigma radiate. Stamens 6 or 12.	
Capsule 6-celled, cells many-seeded Style 1.	70. Birthwort.
Stamens 4. Capsule 4-celled, cells many-seeded	29. Willow-herb.
Stamens 5. Fruit 1-celled, 1-seeded	69. Sandalwood.
Stamens 5. Fruit 2-celled, cells 1-seeded	37. Umbellate.
Stamens 8. Cap. 1-celled, many-seeded; placentas 2, parietal	36. Saxifrage.
Stam. 10 perfect, or 5 with anthers and 5 without. Fruit 1-celled, 1-seeded	33. Paronychia.

PHÆNOGAMEÆ. (CONT?) CLASSII. ENDOGENÆ.

Dr	Drv.VI.		D	POR MOR O
×	n.	8		80. TRILLIACEÆ.
De la Constantina della Consta	## d:Q	0		81. DIOSCOREACEÆ.
A STATE OF THE STA	FI.	J-1-0		93. ARACEÆ.

Dry.VII.				POR W	
	A.	J: 2 9-20		82. Hydrocharidaceæ	
M	W.	Jory	0	83. ORCHIDACEÆ.	
9	W	9 9 9		84. IRIDACEÆ.	
	\$	A	98 99		85. Amaryllidaceæ
	W	\$ 00 (30) \$20	3-6 many	86. ALISMACEÆ.	
		Os Jor		87. Asparagaceæ.	
4	W	(See O.d. 119, Gen 1)		88. LILIACEÆ.	
F.A.MESSER.DEL	(See N 86)	90 Jords		89. Melanthaceæ	

FLOWERING PLANTS. (CONT.)

CLASS II. ENDOGENS. .

DIV. VI. { Leaves net-veined. Flowers with corolla-like or calyx-like perianth, or naked.

Leaves 4 in a whorl, ovate. Flowers solitary. Stamens 8. Berry 4-celled, cells several-seeded Leaves alternate, cordate, plant twining.	FAMILY. 80. Herb-Paris.
Flowers in a raceme. Diœcious. Stamens 6. Berry imperfectly 3-celled, cells 2-seeded Leaves radical, sagittate.	81. Yam.
Flowers in a spathe. Spadix with male fl. above female. Berry 1-celled, 2- to 4-seeded	93. Arum.

DIV. VII. { Leaves parallel-veined. Flowers with calyx and corolla, or corolla-like perianth.

Fruit inferior. Flowers with calyx and corolla, polypetalous.	FAMILY.
Diecious. Stamens 9 to 20. Water plants	82. Frog-bit.
Capsule 1-celled, many-seeded; placentas 3, parietal	83. Orchis.
Stameus 3, anthers facing outwards. Capsule 3-celled, cells many-seeded	84. Iris.
Stamens 6, anthers facing inwards. Capsule 3-celled, cells many-seeded	85. Daffodil.
Fruit superior. Flowers with calyx and corolla, polypetalous. Hermaphrodite: Stamens 6 or 9. Monœcious: Stamens 20 to 30. Ovaries 3 to 6, 1- or 2-seeded; or many 1-seeded Flowers with corolla-like perianth. (See No. 86.) Stamens 6. Style 1; stigmas 1 or 3. (See Order 89, Genus 1.)	86. Water-Plantain.
Rhizome creeping. Berry with 1 or 2 1-seeded cells, or 3 2-seeded cells cells. Bulbous (or rarely root of fleshy fibres). Capsule 3-celled, cells many-seeded Stamens 6. Styles 3, very long or short. Capsule 3-celled, separating into 3 many-seeded	87. Asparagus. 88. Lily.
carpels	89. Meadow-saf- fron.

)IV.VI	M.			M OR O
	कुट्ट दे	y		A Car	90 Juncaceæ.
400	96 Q	0		M	93. Araceæ.
	164	Øor 🖔		sort.	86. ALISMACEÆ.
	#(O)	8	@	*	91. ERIOCAULACEÆ.
Voro	Φοσ2 Φ Φοσ2 Φ Φοσ2 Φ	00		* 10/4	95. Potamogetonaceæ.
Word	1 (Op)	8	0	ore	92. Түрнасел.
Prth. O.	Ф (dd)	Yor	0	a or of	96. Najadaceæ.
	^Φ 2/(ÖQ)	b	(3)		94.LEMNACEÆ.

	DIV.		•	L.		
*	A ₃	*	0	10-1	No.	97. CYPERACEÆ.
A	13	Y	0	8	Property of the second	98. GRAMINEÆ.

DIV. VIII. { Leaves parallel-veined. Flowers with callyx-like perianth, or naked.

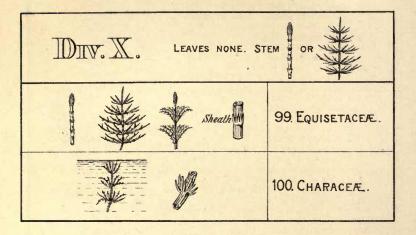
Perianth 6-lobed.	
Stamens 6 or 3. Hermaphrodite.	FAMILY.
Style 1; stigmas 3.	
Capsule 3- or 1-celled, many- or 3-seeded.	
	90. Rush.
Stamens 6. Hermaphrodite.	
Style 0; stigma sessile.	
Berry 3-celled, cells many-seeded.	
	93. Arum.
Style 0; stigmas 3 or 6, sessile.	
Cap. separating into 3 or 6 1- or 2-seeded carpels.	
Flowers in spikes or racemes	86. Water-Plan-
Perianth 4-lobed, or none.	tain.
Stamens 4. Monœcious.	
Style short; stigmas 2, long.	
Capsule 2-lobed, 2-celled, cells 1-seeded.	01 7
Flowers in heads	91. Pipewort.
Stamens 4 sessile, or 2 with filaments; hermaphrodite.	
Stamen 1; monœcions.	
Style 0; stigmas sessile.	
Fruit 4 drupes or 4 nuts, each 1-seeded.	05 7 7
Flowers in spikes, clusters, or axillary	95. Pondweed.
Perianth 3-lobed, or none.	
Stamens 3, on one filament, or separate. Monœcious.	
Style simple.	
Fruit 1-celled, 1-seeded.	00 Dulmak
	92. Bulrush.
Perianth none.	
Stamen 1, with or without a filament. Monœcious	
or diœcious.	
Style 1; stigmas 2 or 3 (rarely 4).	
Fruit 1-celled, 1-seeded.	
Flowers on a leaf-like peduncle, enclosed in a	96. Naiad.
leaf-like sheath; or axillary	ou. Malau.
Stamens 2 or 1, with or without filaments. Monœcious.	DEVICE SAME AND
Style simple. Fruit 1-celled, 1- to 6-seeded.	
Floating or submerged plants, with leaf-like	THE RESERVE AND THE
fronds	Q4 Duckwood
ATULIAS	OT. DUCKWEEU.

DIV. IX. { Leaves parallel-veined. Flowers in imbricated bracts.

Each flower in the axil of 1 bract. Stamens 3; anthers erect, entire at the apex. Style 1; stigmas 2 or 3. Embryo within the albumen.	FAMILY.
Stem solid, triangular, or round. Sheath of leaf entire	97. Sedge.
Stamens 3, rarely 2; anthers versatile, notched at both ends. Styles 2, feathery. Embryo outside the albumen. Stem hollow, round, knotted. Sheath of leaf split	98. Grass.

CRYPTOGAMEE.

CLASS III. ACROGENÆ.



DIV. XII. LEAVES	0
1 11 000	101. LYCOPODIACEÆ.
	102. Marsileaceæ.
F.A.MESSER. DELT	103. FILICES.

FLOWERLESS PLANTS.

CLASS III. ACROGENS.

DIV. X. { Leaves none. Stem simple, or with whorled branches.

	FAMILY.
Stem simple or branched, jointed.	
Joints surrounded by toothed sheaths	99. Horsetail.
Stem branched. Submerged aquatic plants.	
Joints without sheaths	100. Chara.

DIV. XI. { Leaves (or fronds) varying from simple to 2- or 3-pinnate.

	FAMILY.
Plants aquatic, submerged, stemless, leaves subulate; or terrestrial with scale-like imbricated leaves	101. Club-moss.
Plants aquatic, submerged, rootstock creeping, leaves setaceous, circinate when young	102. Pillwort.
Plants terrestrial, with simple or variously divided leaves (fronds) circinate when young	103. Fern.

PHÆNOGAMEÆ. CLASSI. EXOGENÆ.

1. RANUNCULACEE. Wor 320 7 many Oar					
	*)	Pet. A while	PI.	1. ACTÉA.	
		4-5) white		2. CLEMATIS.	
	Donly, petal-like.	4-5) yell.or purp.	Fr	3. THALICTRUM.	
Fr. many		5-20 mhite or purp.	***	4. ANEMÓNE.	
9		Pet.5 Tyell- green	P 4	5. Myosúrus.	
	140	Pet. 58 crim.	Z.	6. ADÓNIS.	
		Pet 5 5 0	Yell or white	7. RANUŃCULUS.	
	Fl. crim.	5) green	Pet. 5-10	8. PÆÓNIA.	
		5) yeu.	Pet. none	9. CALTHA.	
	Fl. yell.	5-8) yell.	Pet. 5-8 9	10. ERANTHIS.	
Fr. 1 ar more		10-15) yell.	Pet. 10-15	11. TROLLIUS.	
U	Fl. green	5) green	Pet. 8-10 9	12. HELLEBORUS.	
	Fl. blue	S spur	Pruit 1	13. DELPHINIUM.	
	Fl.purp.	Pet. 5	1	14. AQUILÉGIA.	
F.A.MESSER. DE		hood	3	15. ACONITUM.	

FLOWERING PLANTS.

CLASS I. EXOGENS.

1. BUTTERCUP FAMILY.

Corolla regular or irregular, polypetalous, inferior. Sepals 3 to 20. Petals 5 to 30. Stamens many. Fruits (achenes) many, 1-seeded; or 1 to 20 follicles, manyseeded.

Fruit a berry, many-seeded.	(Pone house
Sepals 4. Petals 4, small, white. Flowers in racemes	1. Bane-berry, Herb Christo- pher.
Fruits (achenes) many, 1-seeded, short.	(paox.
Flowers with sepals only, petal-like.	
Sepals 4 or 5, white. Style bearded. Stem climb-	
ing, leaves opposite, pinnate	2. Traveller's Joy.
Sepals 4 to 5, yellow or purple. Fruit beardless	3. Meadow-rue.
Sepals 5 to 20, white or purple. Flower stem with an involucre of 3 lobed or pinnate leaves	4. Anemone.
Flowers with both sepals and petals.	
Petals 5, linear, with tubular claws, yellow-green.	
Stamens 5. Fruits on a long spike	5. Mousetail.
Petals 5 to 8, crimson. Leaves finely divided	6. Pheasant's-eye.
Petals 5, or 8 to 10, with a pore at the base, yellow or white	7. Buttercup, Crowfoot.
Fruits (follicles) 1 or more, many-seeded, long.	
Flowers crimson.	
Sepals 5, green. Petals 5 to 10	8. Pæony.
Flowers yellow (both sepals and petals).	
Sepals 5 (petal-like), yellow. Petals none	9. Marsh Marigold.
Sepals 5 to 8 (petal-like), yellow. Petals small,	
linear, with a long claw	10. Winter Aconite.
Sepals 10 to 15 (petal-like), yellow. Petals 10 to 15, small, linear, clawed	11. Globe-flower.
Flowers green (both sepals and petals).	11. Globo-Howel.
Sepals 5 (petal-like). Petals 8 to 10, tubular,	
2-lipped, clawed	12. Hellebore, Bear's-foot.
Flowers blue (both sepals and petals).	(Dear 5-1000.
Flowers irregular; upper sepal with a spur. Fruit	
1 follicle	13. Larkspur.
Flowers purple (both sepals and petals).	
Flowers regular; petals 5, horn-shaped.	14 Columbias
Fruits 5 follicles	14. Columbine.
Flowers irregular; upper sepal of a hood-form. Fruits 3 follicles	15. {Monk's-hood, Wolfsbane.

2. B	ERBERID	ACEÆ.	WIP P	6 or 4 3 or 6 2 or 5
	AM	\$6	Red	1. BERBERIS.
\$	L-let V	74		2. EPIMÉDIUM.

3. NYMPHÆA	CER 25	many
4 Green outside	many, while.	1. NYMPHÉA.
5) Yettor	many, yellow.	2. NÚPHAR.

4. PAPA	AVERACEÆ.	W 2/ (4)	many placentas 2-20
	O or	Red or white	1.	PAPÁVER.
4-20	Ö	Yellow	2.	MECONOÉSIS.
		Violet Violet	3.	ROEMÉRIA.
	September 1	Yellor	4.	CHELIDÓNIUM.
	ACCES TO SERVICE OF THE PARTY O	Yell.orred	5.	GLAÚCIUM.

5. Fum	IARIACEÆ.	Wy 3	Stomens or S
Corolla	Fl. purple	Ø	1. FUMÁRIA.
9	Fl. white or yellow	(September 1)	2. CORYÓALIS.

F.A.MESSER. DELT

2. BARBERRY FAMILY.

Corolla regular, polypetalous, inferior. Sepals 6 or 4. Petals 6 or 4. Stamens 6 or 4, opposite the petals; anthers opening by valves attached to top. Fruit a 2- or 3-seed berry or pod. Shrubs or herbs.

Shrubs, with 3-forked spines and ovate leaves. Stamens 6. Fruit a 2- or 3-seeded berry, red .. Herbs, with compound leaves, leaflets ovate-cordate. Stamens 4. Fruit a many-seeded capsule ..

- 1. Barberry.
- 2. Barrenwort.

3. WATER-LILY FAMILY.

Corolla regular, polypetalous, inferior. Sepals 4 or 5.
Petals many, passing into stamens. Stamens many.
Berry many-celled, many-seeded. Leaves floating, falsely peltate.

White Water Sepals 4 green outside. Petals many, white lily. Yellow Water-Sepals 5 yellow. Petals many, yellow .. lily. Brandy-bottle.

Corolla regular, polypetalous, inferior. Sepals 2. Petals 4. Stamens many. Capsule 1- or 2-celled; placentas 2 to 20, 4. POPPY FAMILY. many-seeded.

Capsule 1-celled; placentas 4 to 20 (forming imperfect

Capsule globular or oblong. Petals red or white

Capsule obovate. Petals yellow

Capsule 1-celled; placentas 2.

Capsule linear, bristle-pointed. Petals violet ...

Capsule linear, smooth-pointed. Petals yellow

Capsule 2-celled; placentas 2.

Capsule very long, curved. Petals yellow or red ..

1. Poppy.

2. Welsh Poppy.

3. Rœmeria.

4. Celandine.

5. Horned Poppy.

5. FUMITORY FAMILY.

Corolla regular, polypetalous, inferior. Sepals 2. Petals 4. Stamens 6, diadelphous; anthers, four 1-celled and two 2-celled. Fruit a 1-seeded nut or a severalseeded pod.

Corolla ringent, gibbous or spurred. Flowers purple.

Fruit a nut, 1-seeded Flowers white or yellow.

Fruit a pod, 2-valved, many-seeded

1. Fumitory.

2. Corydal.

6. CRUCIFERE. W 4) 4 04 0 por						
	Pod	8	White	SeeXB.		CRAMBE
	0	0	Yellow	011	2.	ISÁTIS.
	♦	B	Purple	0=	3.	CAKÍLE.
		0	No reins	0=	4.	ARMORÁCIA.
		White	1 rein	0=	5.	COCHLEÁRIA.
		\bigcirc		OII	6.	CAMELÍNA.
Pod		Yellow	L	0=	24.	NASTUŔTIUM.
P		L.	Pod	0=	7.	ALYSSUM.
20		L. ‡	9	0=	8.	DRÁBA.
		2 8,2	Ø.	0=	9.	IBERIS.
	1	4)	\$ \$\pi\$	011	10.	SENEBIÉRA.
		V	Dar D	OII	11.	LEPIDIUM.
		2 8 2	3Ф	0=	12.	TEESDÁLIA.
		4	90	0=	13.	HUTCHIŃSIA.
	-	L. Jallrad	9	OII	14.	SUBULÁRIA.
	33	Root L	T	OII	15.	CAPSELLA.
		B	P	0=	16.	THLASPI.
F.A.MESS	F.A.MESSER. DELT (Continued.)					

6. CRUCIFER FAMILY.

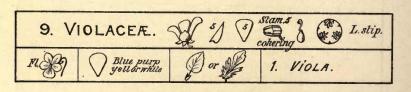
Corolla regular, polypetalous, inferior. Sepals 4. Petals 4. Stamens 6, tetradynamous (4 longer than the 2 others). Fruit 2- (rarely 1-) celled; placentas parietal. Pod short or long.

Pod short, length from 1 to 3 breadths.	LIE CONTROL
Pod without vertical division, fertile cells 1-seeded.	
Pod globose, with 1 fertile and 1 barren cell,	
2-jointed. Petals white	1. Sea-kale.
Pod compressed, pendulous, with fertile cell only.	
Petals yellow	2. Woad.
Pod angular, with one or both cells fertile. Petals	
purple	3. Sea Rocket.
Pod 2-celled, globose (with vertical division); cells	
many-seeded.	
Petals white.	
Valves (of the pod) without veins	4. Horse-radish.
Valves with 1 vein	5. Scurvy-grass.
Petals yellow.	[sure.
Leaves mostly lanceolate-sagittate	6. Gold of Plea-
Leaves mostly lyrate or pinnatifid, toothed	24. Watercress.
Pod 2-celled, dorsally compressed (viz. division in its	ZI. W WOOLCIOSS.
broadest diameter); cells 1- or 2-seeded.	
Stem leafy (leaves ovate-lanceolate).	
Pods orbicular	PZ Almanana
Pod 2-celled, dorsally compressed; cells many-seeded.	7. Alyssum.
Stem naked, leaves radical tufted.	SV PARK STORY
	O W71-241
Pod oblong or ovate	8. Whitlow-
Pod 2-celled, laterally compressed (viz. division in its	grass.
narrowest diameter); cells 1-seeded.	
Petals 4, 2 larger than the 2 others.	0 00-3-4-64
Pod ovate or orbicular, notched and winged	9. Candy-tuft.
Petals 4, all equal.	10 Word answer
Pod broader than long, wrinkled	10. Wart-cress.
Pod orbicular or oblong, notched or entire, keeled	
or winged	11. Pepperwort,
Pod 2-celled, laterally compressed; cells 2-seeded.	Cress.
Petals 4, 2 larger than the 2 others.	
Stamens with a scale at the base of each. Pod	
orbicular notched	12. Teesdalia.
Petals 4, all equal.	
Stamens without scales.	
Pod oval	13. Hutchinsia.
Pod 2-celled, laterally compressed; cells many-seeded.	
Leaves awl-shaped, all radical.	
Pod oval-oblong	14. Awl-wort.
Root leaves mostly pinnatifid.	
Pod triangular-cordate	15. Shepherd's
Root leaves obovate or oval.	Purse.
Pod orbicular, notched, and winged	16. Penny Cress.
	See The second
N.B.—The position of radicle with respect to cotyledons is symbolized as follows:—Incumbent OII. Accumbent, O=. Conduplicate, O >>.	
	CONTRACTOR OF THE PARTY OF THE

		1	RootL.	Stigma	0	SeeXB O=	17. DENTÁRIA.											
	Lilac or purp.	The state of the s	N. S.	8	No reins	0=	18. MATTHÍOLA.											
	See	9	B	1	3 faint veins	OII	19. HESPERIS.											
		4			No Voins	0=	20. CARDAMINE.											
	White		PP		b & 2 reins	OII	21. ALLIÁRIA.											
	See NA 24127		四路	1Ril	Many Veins	0=	22. ARABIS.											
Pod A			Stem L. J	Catya	1 Rib	0=	22. Do.											
		2000	Root L.	A.	1Rib	0))	23. DIPLOTAXIS.											
r		13 3	罗	罗	罗	罗	P	PF	罗	PF	罗	PF	P	W	No reins	0=	24. NASTURTIUM.	
				1	IRib	0=	25. CHEIRAŃTHUS.											
	Yellow		00	1	1Rib	OII	26. ERYSIMUM.											
-		Tine.			20000	See	See	See	See	See	See	See	See		8	Fl.white yellorlilac	O»	27. Raphanus.
			M B	11	Calyer 3-5 Kins	O»	28. SINAPIS.											
e times i name					3 3 19	V D	O»	29. BRASSICA.										
			秦秦	11	IRib _	0=	30. BARBARÉA.											
	BSER. DEL		•	7	3 reins	OII	31. SISYMBRIUM.											

Pod long, from 4 to many times its breadth.	
Petals lilac or purple. (See Nos. 20 and 22.)	
Seeds in a single row.	
Root leaves pinnate; leaflets few; bulbs in axils.	area area
Stigma a disk. Pod compressed; valves veinless.	17. Coralwort.
Root leaves lanceolate entire, or oblong sinuate.	
Stigma with 2 gibbous lobes. Pod orbicular	
or compressed	18. Stock.
Root leaves ovate-lanceolate, toothed,	
Stigma with 2 ovate lobes. Pod terete; valves	CONTRACT OF THE
with 3 faint veins	19. Dame's Violet.
Petals white. (See Nos. 24 and 27.)	10. Dame's Vivieu.
Seeds in a single row.	
Root leaves pinnate (leaflets various).	
Pod compressed; valves flat veinless	20. Bitter-cress.
Root leaves reniform or cordate, crenate.	
Pod terete; valves with 1 rib and 2 veins	21. Sauce-alone,
Root leaves obovate, elliptic, or pinnatifid.	Hedge-garlic.
Pod compressed; valves with 1 rib or many	
veins. (In A. Thaliana the cotyledons are	
incumbent.)	22. Rock-cress.
Petals yellow.	SS. IVOCA-CIESS.
Seeds in a double row.	
Stem leaves oblong, arrow-shaped, entire.	
Calyx erect. Pod compressed; valves with 1 rib	22. Tower-mus-
Root leaves lobed, pinnatifid, lyrate, or pinnate,	tard.
Calyx spreading.	
Pod compressed; valves with 1 vein	23. Rocket.
Pod terete; valves veinless	24. Watercress.
Seeds in a single row.	DI. Watercress.
Root leaves lanceolate, acute, entire.	
Lobes of stigma spreading.	
Pod compressed or 2-edged; valves with 1 rib	25. Wallflower.
Root leaves lanceolate, slightly toothed; or obo-	20. Wallhowel.
vate, entire,	
Stigma simple. Pod 4-edged; valves with 1 rib	26. Treacle-mus-
Root leaves lobed, pinnatifid, lyrate, or pinnate.	tard.
Pod moniliform, divided into 1-seeded cells.	
Petals yellow, white, or lilac	27. Radish.
Pod with a short or long conical beak,	
Calyx spreading. Valves with 3 to 5 veins	28. Mustard.
Calyx erect. Valves with 1 vein	29. Cabbage.
Pod with a simple pointed or capitate style.	ao. Januago.
Pod terete; valves with 1 rib	30. Wintercress.
Pod terete; valves with 3 veins	31. Hedge-mus-
	tard.

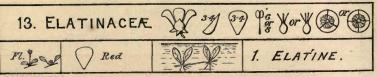












P.A.MESSER . DELT

7. MIGNONETTE FAMILY.

Corolla irregular, polypetalous, inferior. Sepals 4 to 6. Petals 4 to 6. Stamens 10 to 20, on a one-sided disk. Capsule 1-celled, with 3 (rarely 4 to 6) parietal placentas, many-seeded, open at

Flowers in spikes or racemes.

Petals greenish-yellow or white. Leaves entire, pinnatifid, or pinnate

1. Mignonette.

8. ROCK-ROSE FAMILY.

Corolla regular, polypetalous, inferior. Sepals 3 large, and 2 or 0 small. Petals 5. Stamens many. Style simple. Capsule imperfectly 3-celled, seeds several. Herbs or shrubs.

Flowers in racemes. Petals yellow or white. Leaves opposite, linear-oblong or ovate

1. Rock-rose.

9. VIOLET FAMILY.

Corolla irregular, polypetalous, inferior. Sepals 5, saccate at the base. Petals 5. Stamens 5, cohering, 2 spurred. Style with a hooded stigma. Capsule 1-celled, with 3 parietal placentas, seeds many. Leaves with stipules.

Flowers spurred (solitary). Petals blue, pink, yellow, or white.

Leaves cordate or ovate with pinnatifid stipules

1. Violet, Pansy, Heartsease.

10. SUNDEW FAMILY.

Corolla regular, polypetalous, inferior. Sepals 5. Petals 5. Stamens 5. Styles 3, deeply bifd. Capsule 1-celled, with 3 parietal placentss in the mlddle of valves; seeds many. Leaves circinate in bud.

Petals white. Flowers in racemes.

Leaves all radical, orbicular or obovate-lanceolate, covered with glandular hairs

1. Sundew.

11. SEA-HEATH FAMILY.

Corolla regular, polypetalous, Inferior. Calyx tubular, with 5 teeth. Petals 5. Stamens 6. Style 3-fid. Capsule 1-celled, with 3 parietal placentas, seeds many.

Flowers terminal, or from the forks of the stem, sessile. Petals pink.

Leaves oblong (with reflexed edges), clustered .. 1. Sea-heath.

12. MILKWORT FAMILY.

Corolla irregular, polypetalous, inferior. Sepals 2 large (coloured) and 3 small. Petals 3. Stamens 8, in two clusters. Style 1, curved. Capsule 2-celled (compressed), cells 1-seeded.

Flowers with the 2 inner sepals large and petal-like; in racemes. Petals blue, pink, or white. Leaves obovate or oblong-lanceolate

1. Milkwort.

13. WATERWORT FAMILY, {

Corolla regular, polypetalous, inferior. Sepals 3 or 4. Petals 3 or 4. Stamens 6 or 8. Styles 3 or 4. Capsule 3- or 4-celled, cells many-seeded.

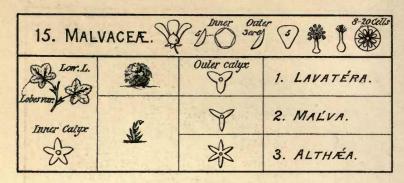
Flowers solitary, stalked, or sessile. Petals red. Leaves opposite, obovate. Stem rooting, water plants. 1. Waterwort.

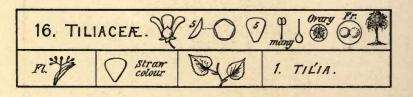
14. C/	ARYOPHY	LLACEÆ.	W Jor	Sand Sand Sand Sand Sand Sand Sand Sand			
	χ	Catyx	Capsule	1. DIANTHUS.			
Calve	0	Q	M -4	2. SAPONARIA.			
Ψ	8	\bigcirc	M ₆	3. SILÉNE.			
	*	8	5-77 000	4. LYCHNIS.			
		Petals none	M-3	5. CHERLÉRIA.			
			Me.	6. STELLÁRIA.			
		3	FI.	7. HOLOSTEUM.			
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	3	L. stip.	8. POLYCARPON.			
		6)	Listin Form	9. SPERGULÁRIA.			
MM			5	Cap.	10. HONKENÉYA.		
% S S S S S S S S S S S S S S S S S S S					V	® 💯	11. ALSÍNE.
The state of the s			® 💯	12. ARENÁRIA.			
		4	Cap.	13. MŒNCHIA.			
		4.00.	D *	14. SAGÍNA.			
		(3)	L.	14. Do.			
			L. stip.	15. SPERGULA.			
		S.	Cap	16. CERASTIUM.			

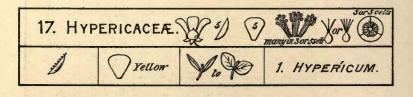
14. PINK FAMILY.

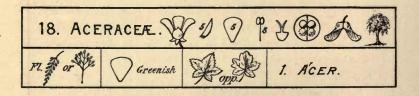
Corolla regular, polypetalous, inferior. Sepals 4 or 5, distinct, or united into a tubular calyx. Petals 4, 5, or 0. Stamens 4, 5, or 10. Styles 2 to 5. Capsule 1-celled, many-seeded; placenta central. Leaves opposite, entire, varying from linear to ovate.

Sepals united, forming a tubular calyx.	
Styles 2.	
Calyx with 2 or more scales at the base.	
Capsule with 4 valves	1. Pink and Carnation.
Calyx without scales at the base.	
Capsule with 4 valves	2. Soapwort.
Styles 3.	
Capsule more or less 3-celled, with 6 valves	3. Catchfly.
Styles 5.	
Capsule 1- or partly 5-celled, with 5 or 10 valves	4. Campion.
Sepals 4 or 5, distinct.	
Styles 3.	
Petals none.	
Capsule with 3 valves	5. Cyphel.
Petals 5, bifid.	
Capsule with 6 valves	6. Stitchwort.
Petals 5, jagged or toothed.	
Flowers 3 to 8, umbellate	7. Holosteum.
Petals 5, emarginate.	
Leaves obovate, upper ones 4 in a whorl, stipu-	
late	8. Polycarp.
Petals 5, entire.	
Leaves linear, stipulate. Petals purple	9. Sand Spurry.
Capsule 3- to 5-seeded, valves 3	10. Sea Purslane.
Capsule many-seeded, valves 3	11. Sandwort.
Capsule many-seeded, valves 6	12. Do.
Styles 4.	
Petals 4, entire, Capsule with 8 valves	13. Mœnchia.
Petals 4, entire, or none. Capsule with 4 valves	14. Pearl-wort.
Styles 5.	
Petals 5, entire.	three states
Leaves opposite, without stipules	14. Do.
Leaves whorled, with stipules	15. Spurry.
Petals 5, bifid.	
Capsule with 10 valves	16. Mouse-ear.











F.A.MESSER DELT

15. MALLOW FAMILY.

Corolla regular, polypetalous, inferior. Inner sepals 5, valvate in the bud. Outer speals 3 or 6. Petals 5. Stamens many, united at the base. Styles many, united at the base. Fruit 8- to 20-celled, cells 1-seeded.

Leaves alternate, stipulate, lower variously lobed. Inner calyx of 5 sepals.

Shrubs.

Outer calyx of 3 ovate sepals ... Herbs.

1. Tree Mallow.

2. Mallow. Outer calyx of 3 lanceolate sepals

Outer calyx of 6 lanceolate sepals ... 3. Marsh-mallow.

16. LIME FAMILY, Corolla regular, polypetalous, inferior. Sepals 5, valvate in the bnd. Petals 5. Stamens many. Style simple. Ovary 5celled, cells 2-seeded. Fruit 1-celled, 1- or 2-seeded. Trees.

Flowers on a bract. Petals straw colour.

Leaves alternate, obliquely cordate, stipulate ...

1. Lime or Linden

17. ST. JOHN'S WORT FAMILY.

Corolla regular, polypetalous, inferior. Sepals 5. Petals 5. Stamens in 3 (rarely 5) bundles. Styles 3 or 5. Capsule with 3- or 5-cells, cells many-seeded. (Herbs or shrubs.)

Sepals mostly with glandular dots.

Petals yellow. Leaves opposite, entire, linear to ovate 1. St. John's Wort

18. MAPLE FAMILY.

Corolla regular, polypetalous, inferior. Calyx-lobes 5. Petals 5. Stamens usually 8 (on an hypogynous disk). Styles 2. Ovary 2-celled, cells 1- or 2-seeded. Fruit winged. Trees.

Flowers in pendulous racemes, or erect corymbs. Petals greenish. Leaves opposite, lobed ..

1. Maple.

19. GERANIUM FAMILY.

Corolla regular, polypetalous, inferior. Sepals 5. Petals 5. Stamens 5 or 10, united at the base. Fruit 5-celled, cells 1-seeded. Fruit with a long beak. Leaves opposite, stipulate. (Stem swollen at the nodes.)

Stamens 10.

Awns of carpels not bearded internally; ultimately re-

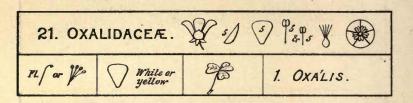
Leaves divided palmately, or into 3 pinnate segments Stamens, 5 fertile with scales at the base, and 5 sterile.

1. Crane's-bill.

Awns of carpels bearded; ultimately spirally twisted. Leaves pinnate; or ovate, lobed

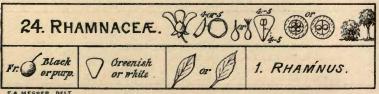
2. Stork's-bill.





22. LINACEÆ. 2 4-5) 4-5 4 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
9# 8	4) White	4)	1. RADÍOLA.			
95 8	S Blue or white	5)	2. LINUM.			





20. BALSAM FAMILY.

Corolla irregular, polypetalous, inferior. Sepals 3, yellow. Petals 3. Stamens 5, anthers cohering. Ovary 5-celled, Petals 3. Stamens 5, anthers cohering. cells many-seeded. Succulent plants.

Lower sepals spurred, horn-shaped. Flower yellow or orange, spotted. Leaves alternate, ovate, serrate

1. Balsam.

21. WOOD-SORREL FAMILY, {

Corolla regular, polypetalous, inferior. Sepals 5. Petals 5. Stamens 5 long and 5 short. Styles 5. Ovary 5-celled, cells few-seeded.

Flowers solitary or in scant umbels. Petals white or yellow. Leaves ternate, stipulate ...

1. Wood-sorrel.

22. FLAX FAMILY.

Corolla regular, polypetalous, inferior. Sepals 4 or 5. Petals 4 or 5. Stamens 4 or 5. Styles 4 or 5. Capsule with 4 complete and 4 incomplete, or with 5 complete and 5 incomplete disseniments.

Stamens 4. Styles 4.

Petals 4, white. Sepals 4 ... 1. All-seed.

Stamens 5. Styles 5.

2. Flax. Petals 5, blue or white. Sepals 5

23. SPINDLE-TREE FAMILY.

Corolla regular, polypetalous, inferior. Sepals 4 or 5. Petals 4 or 5. Stamens 4 or 5. Styles 1 or 2. Ovary 4-celled, cells 1-seeded; or 2-celled, cells 2-seeded. Shrubs or trees.

Stamens 4. Style 1. 'Petals 4, yellowish-white.

Leaves ovate-lanceolate, minutely serrate

Stamens 5. Styles 2. Petals 5, greenish-white.

Leaves pinnate, leaflets 5 to 7. Stipules deciduous

1. Spindle-tree.

2. Bladder-nut.

24. BUCKTHORN FAMILY.

Corolla regular, polypetalous, inferior. Calyx-lobes 4 or 5, valvate in bud. Styles 1, or 4 partly united. Petals 4 or 5. Stamens 4 or 5 opposite the petals. Frult a 4- or 2-celled berry, cells 1-seeded. Shrubs or trees.

Fruit a black or purple berry. Petals small greenish-white.

Leaves obovate, entire; or oval, serrate

1. Buckthorn.

25. LEGUMINOSE. Stam.10 Stam.10 Sor							
	L.	Calyx	Fl.yellor	1. ULEX.			
150		BA	Fl. yellor	2. GENISTA.			
	ADA_	30	Stip. Fl.yeu.	3. SAROTHAMNUS.			
	1 7	居英	Stip. Ny M. rose	4. ONÓNIS.			
		PAGE	Pl. For	5. MEDICÁGO.			
		Seeds 1-4	Fl Sport	6. TRIFÓLIUM.			
		Seeds 1-4	Fl.	7. MELILÓTUS.			
	4	Seeds 6-8	Yory Stip.	8. TRIGONELLA.			
		13	Brack Stip.	9. LOTUS.			
		B	Do. Pi	10. ANTHYLLIS.			
		**	FL. Rose streaked	11. ONÓBRYCHIS.			
6		6 0	Stip. Keel	12. OXYTROPIS.			
W	1	@ O	Stip. Keel	13 ASTRAGALUS.			
14.5	1	ADDOOR	Bet Fl. rose streaked	14. ORNITHOPUS.			
		ASSESSED	Bot. O Fl. yell.	15. ARTHROLÓBIUM.			
	(See N. 29)	لتتناثي	Bct.0 Pl. yell.	16. HIPPOCRÉPIS.			
		Style	Pl. 35	17. Orobus.			
		=	Stem stip.	18. VICIA.			
			Stem. Stip.	19. LATHYRUS.			
F.A.MESS	Jess /	for b	Style	19. Do.			

25. PEAFLOWER FAMILY.

Corolla irregular (papilionaceous), polypetalous, inferior. Calyx-lobes 5. Petals 5. Stamens 10, all or 9 united. Style 1. Fruit a long or short legume.

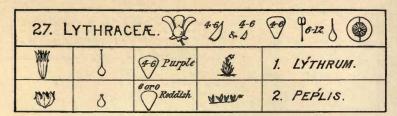
legume.	at Trace a long of Buote
Shrubs, or under-shrubs.	
Leaves simple, awl-shaped.	Furze,
Calyx of 2 sepals, with 2 bracts. Flowers yellow	1. Whin,
Leaves simple (mostly lanceolate or obovate).	Gorse.
Calyx with 5 teeth, the 2 upper longer than the others. Flowers yellow	Dyer's Green
Leaves simple or ternate. (Leaves and leaflets mostly	2. weed, Needle Whin.
oblong or obovate.)	(Treedite WILLI
Calyx 2-lipped, lips short.	
Stipules free from leaf-stalk. Flowers yellow	3. Broom.
Calyx 5-cleft, segments narrow.	
Stipules adnate to leaf-stalk. Flowers rose	4. Rest-harrow.
Herbs.	
Leaves ternate. (Leaflets mostly linear, lanceolate, obovate or obcordate.)	
Pod variously curled, or spirally twisted.	
Flowers in scant racemes or heads	5. Medick.
Pod short, seldom longer than the calyx; seeds 1 to 4.	(0)
Flowers in heads or umbels	6. Clover,
Pod short, sub-globose, longer than the calyx; seeds	Trefoil.
1 to 4.	PF 3F-111.4
Flowers in long racemes	7. Melilot.
Pod compressed, truncate, seeds 6 to 8. Flowers 2 or 3 together. Stipules small, not	TARREST STATE
leaf-like	8. Trigonel,
Pod long.	(Fenugreek.
Bracts ternate. Stipules large, leaf-like	9. Bird's-foot Trefoil.
Leaves pinnate, with 2 or more pairs of leaflets, and	(Lietoii.
an odd terminal one. (Leaflets mostly linear,	
lanceolate, oblong, oval, or obovate.) (See No. 9.)	
Proof leaf like Flower heads 2 (or 2) together	10. Lady's Finger Kidney-vetch
Bracts leaf-like. Flower heads 2 (or 3) together Pod twice as long as calyx, prickly, 1-seeded.	Kidney-vetch
Flowers in dense racemes, rose streaked	11. Sainfoin, Cock's-head.
Pod much longer than the calyx, upper suture inflexed.	Cock's-nead.
Stipules adnate to the leaf-stalk. Keel acute	12. Oxytrope.
Pod much longer than the calyx, lower suture in-	10 3500
flexed. Stipules free from leaf-stalk. Keel blunt	13. Milk-vetch.
Pod many-jointed, contracted at the joints.	14 Dind's foot
Bracts leaf-like. Flowers rose streaked	14. Bird's-foot.
Pod many-jointed, not contracted at joints. Bracts none. Flowers 2 to 5 together, yellow	15. Yellow Bird's
Pod many-jointed, joints crescent-shaped.	(_100t.
Bracts none. Flowers 5 to 8 together, yellow	16. Horseshoe Vetch.
Leaves pinnate, with 2 or more pairs of leaflets, and	(Aeren.
a terminal stump. (Leaflets mostly lanceolate or	
oblong.)	
Style flattened, hairy on the inner side only.	17. Bitter Vetch.
Flowers in racemes	
tendril. (Leaflets mostly linear, lanceolate, or ovate.)	
Style filiform, hairy on the outside or all round.	
Style filiform, hairy on the outside or all round. Stem angular, and stipules mostly half-sagittate	
or ovate (not leaf-like)	18. Vetch, Tare.
Style flattened, hairy on the inner side only. Stem	Vetchling, 19. Everlasting
winged, or stipules broad, leaf-like, hastate	Pea.
Leaves pinnate, with a single pair of leaflets and a	1 - Ca.
tendril (leaflets mostly linear, lanceolate, or obovate); or a single lanceolate leaf-like bract; or	
a hastate bract, with a tendril.	
	19. Do.

26.	26. ROSACEÆ. Wor or s. 4-10 5.4008 many 6 Fr. rar.							
	100	\Diamond	A.s.	1. Rósa.				
	\$	\bigcirc	For F	2. Rúbus.				
	•	Sord	to B	3. PRÚNUS.				
or		Fl. Cal.	Carpels bony	4. MEŚPILUS.				
		Floto Cal	Do.	5. COTONEASTER.				
	1-5 Cells	THE AND	Do.	6. CRATÆGUS.				
		Fl. Yor	Carp.	7. PÝRUS.				
		Q 14	Creen	8. ALCHEMILLA.				
	None		Purple	9. SANGUISORBA				
	Jione	O Q Q 20:30	₫ ₩ ♀\$	10. POTÉRIUM.				
	Calyx	FL	 55-12	11. SPIRÉA.				
	改	FL	J-2	12. AGRIMÓNIA.				
**		8) White		13. DRÝAS.				
		(3)		14. FRAGÁRIA.				
	or experience	White	Source .	15. POTENTILLA.				
			many many	15. Do.				
	黎	Yellow Yellow	many H	16. GÉUM.				
-			of s smarry	17. SIBBALDIA.				
FA MESSEA	DELT	Purple	STATE OF THE PERSON OF THE PER	18. CÓMARUM.				

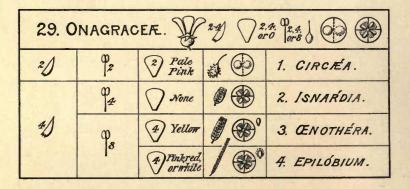
26. ROSE FAMILY.

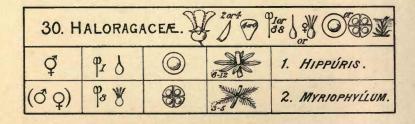
Corolla regular, polypetalous, inferior or superior. Calyxlobes 4 to 10. Petals 5, 4, or 8. Stamens many, perigynous (inserted at the base of the sepals). Ovaries many, or 1 to 5. Fruit various. Leaves stipulate.

Trees or shrubs.		
Fruit many hairy nuts in a fleshy calyx-tube.	- 12	
Petals large, notched. Leaves pinnate, stipules adnate		
to petiole; leaflets 5 to 9; stem prickly	1	Rose.
	1	Toose.
Fruit granulated, consisting of many small drupes. Petals entire. Leaves ternate or quinate, or rarely		(Promble
	0	Bramble, Blackberry,
simply lobed; stem prickly	2.	Blackberry,
Fruit a fleshy drupe.		Raspberry.
A cherry or plum. Leaves toothed, varying from		(Plum
lanceolate to obovate	3.	Plum, Cherry.
Fruit a thick fleshy calyx-tube, a pome with 1 to 5		(Onorry.
cells, cells 1- to 2-seeded.		
Flowers solitary. Calyx segments long, leaf-like.		
Leaves lanceolate. Carpels bony	4.	Medlar.
Flowers 1 to 4 together. Calyx with short lobes. Leaves roundish ovate. Carpels bony		
Leaves roundish ovate. Carpels bony	5.	Cotoneaster.
Flowers in compound cymes.	135	/ Howthown
Leaves deeply lobed (stem thorny). Carpels)		Hawthorn,
bony	6.	May,
Leaves variously toothed, lobed, or pinnate.		Whitethorn.
Carpels horny	7.	Pear, Apple, Service, &c.
Herbs.		Service, &c.
Petals none.	8.3	
Hermaphrodite. Stamens 1 to 4.		
Calyx of 8 segments in 2 rows, green; alternate		
	0	Today's Wontle
segments smaller		Lady's Mantle.
Calyx of 4 segments in 1 row, purple	9.	Great Burnet.
Polygamous. Stamens 20 to 30.	-	
Male flowers with long delicate stamens.	10	-
Female flowers with a tufted style	10.	Lesser Burnet.
Calyx of 5 segments in 1 row.		
Flowers in compound cymes.	44	Meadow-sweet.
Fruit 5 to 12 follicles	11.	Meadow-sweet, Dropwort, &c.
Flowers in long spikes.		,,
Fruit 1 to 2 nuts in a turbinate calyx armed with		
hooked bristles	12.	Agrimony.
Calyx of 8 segments in 1 row.		
Petals 8, white.		
Fruit many small nuts with hairy styles.		Mountain
Receptacle flat, dry	13.	Avens.
Receptacle flat, dry	17	(Avens.
ments usually smaller.		
Petals 5, white.		
Fruit many small nuts, on a large succulent		
deciduous receptacle	14.	Strawberry.
Fruit many small nuts, on a large flattish dry		
receptacle	15.	Cinque-foil.
Petals 5 or 4, yellow.		
Stameus many. Fruit many small nuts, on a		
flattish dry receptacle	15.	Do.
Stamens many. Fruit many small nuts, with		
jointed hooked styles, on an elongated dry recep-		TEAL VIEW BY
tacle	16.	Avens.
Stamens 5. Fruit many small nuts, on a flattish		
dry receptacle	17.	Sibbaldia.
Petals 5, purple.		
Fruit many small nuts, on an ultimately large	1	(W) O'
spongy receptacle	18.	Marsh Cinque-
1 0, 1		foil.











F.A.MESSER.DELT

27. LOOSESTRIFE FAMILY.

Corolla regular, polypetalous, inferior. Calyx-lobes 4 to 6 large and 4 to 6 small. Petals 4 to 6. Stamens 6 to 12. Style 1. Capsule 2-celled, cells many-seeded.

Calyx tubular. Style long, filiform. Petals 4 to 6 purple. Plant upright .. Calyx bell-shaped. Style short.

1. Purple Loose-

Petals 6 (minute) reddish, or none. Plant prostrate creeping

2. Water-Purslane.

28. TAMARISK FAMILY, }

Corolla regular, polypetalous, inferior. Calyx-lobes 5.

Petals 5. Stamens 5. Styles 3, thick. Capsule
1-celled, many-seeded. Shrubs.

Flowers in spikes. Petals pink or white. Seeds hairy. Leaves minute scale-like

1. Tamarisk.

29. WILLOW-HERB FAMILY.

Corolla regular, polypetalous, superior. Calyx-lobes 2 to 4. Petals 2, 4, or 0. Stamens 2, 4, or 8. Style 1. Capsule 1- or 2-celled, cells 1-seeded; or 4-celled, cells many-seeded.

Calyx-lobes 2. Stamens 2. Petals 2, pale-pink. Capsule hairy, 1or 2-celled, cells 1-seeded .. Calyx-lobes 4. Stamens 4.

1. Enchanter's Nightshade.

Petals none. Capsule short, 4-celled, cells manyseeded Stamens 8. Petals 4, yellow. Capsule linear, short, 4-celled, cells many-seeded, seeds glabrous Petals 4, pink, red, or white. Capsule linear, long, 4-celled, cells many-seeded. Seeds hairy

2. Isnardia.

3. Evening Primrose.

4. Willow-herb.

30. MARE'S-TAIL FAMILY.

Corolla regular, polypetalous, superior; or none. Calyx-lobes 2 or 4. Petals 4, or (usually) none. Stamens 1, or in male flowers 8. Style 1, or in female flowers 4. Fruit 1-celled, 1-seeded; or separating into 4 1-seeded nuts. Water plants.

Hermaphrodite. Stamen 1. Style 1 acute. Fruit a 1-celled nut. Leaves linear, 6 to 12 in a whorl 1. Mare's-tail. Monœcious. Stamens 8. Styles 4 villous.

Fruit separating into 4 1-seeded nuts. Leaves pinnate. 3 to 5 in a whorl

2. Water Milfoil.

31. GOURD FAMILY.

Corolla regular, monopetalous, superior. Dicecious. Calyx-lobes 5. Corolla-lobes 5. Stamens 5, sinuous, in 3 bundles. Style 3-fld, stigmas 2-lobed. Fruit a 3- to 6-seeded berry.

Stamens 5, sinuous, in 3 bundles.

Corolla veined, greenish-white. Fruit red or black. Stem climbing, with tendrils, leaves lobed

1. Bryony.

32. PORT	ULACEA	War W.	2) 50 9 95 8
23 White	φ3	Syp .	1. MONTIA.
(5) While	φ _s	Stem L.	2. CLAYTÓNIA.

33. P	33. PARONYCHIACEÆ. TO TO TO YOU WE WAS A SOLUTION OF THE STATE OF THE						
	Petals none	· Calyx	Leares	1. SCLERANTHUS.			
R	1	经	app.	2. HERNIA'RIA.			
	1	353	app.	3. ILLECÉBRUM.			
R	0	会	3	4. CORRIGIOLA.			

34. C	RASSUL	ACEÆ.	Write of	3-20 3-20 03 3-20 Succu! Plants
9 30r4	Pet. 30r4	Follicles	Leaves	1. TILLÆA.
φ _{8,70}	Cor.	J5	9	2. COTYLEDON.
ar12	Pet. 046	84-8	O for B	3. SÉDUM.
φ 12-40	Pet. 6-20	\$ 6-20	0	4. SEMPERVIVUM.

35. R	IBESIAC	ER.	5) 5	95 York (1)
Fix or like	Fr. O	FL Green	3-5 lobes	1. RIBES.

36. S	AXIFRA	GACEÆ.	Vor SK	5 ary (5.8)
Calyse	φ _s	J-None J-Yellow		1. CHRYSOSPLÉNIUM.
~~	p 5	Scales 5 1/2		2. PARNASSIA.
255	0 10	8		3. SAXIFRAGA.

32. PURSLANE FAMILY, }

Corolla regular, polypetalous or monopetalous, inferior. Sepals 2. Petals 5, or corolla-lobes 5. Stamens 5 or 3. Stigmas 3. Capsule 1-celled, 3-seeded.

Corolla 5-lobed, split, white; 2 lobes longer than the other 3. Stamens 3. Leaves opposite, spathulate, entire Petals 5, white.

1. Blinks.

Stem leaves orbicular concave, perfoliate 2. Claytonia. Stamens 5.

33. PARONYCHIA FAMILY.

Corolla regular, polypetalous, inferior. Sepals 5.
Petals 5 or 0. Stamens 5. Styles (or stigmas)
2 or 3. Fruit 1-celled, 1-seeded.

Stigmas or styles 2. Petals none. Calyx vase-shaped. Leaves linear, opposite

1. Knawel.

Petals setaceous. Calyx of 5 sepals. Leaves opposite, obovate Petals subulate. Calyx of 5 sepals, horned at back.

2. Rupture-wort.

Leaves obovate Stigmas or styles 3.

3. Illecebrum.

Petals oval or oblong. Calyx of 5 sepals. Leaves oblong, tapering at base, alternate ...

4. Strapwort.

34. STONEGROP FAMILY.

Corolla regular, polypetalous, or rarely monopetalous, inferior. Sepals 3 to 20. Petals 3 to 20. Stamens 3 to 40. Follieles 3 to 20. Succulent plants.

Stamens 3 or 4. Petals 3 or 4. Follicles 3.

1. Tillæa.

Leaves opposite, oblong, blunt, connate .. Stamens 8, 10, or 12. Corolla tubular, 5-cleft. Follicles 5. Root leaves peltate Petals 4 to 6.

2. Navelwort.

Follicles 4 or 6. Leaves subterete, ovate or oblong;

3. Stonecrop,

or flat obovate or toothed Stamens 12 to 40.

Petals 6 to 20. Follicles 6 to 20. Leaves obovate, thick 4. Houseleek.

35. CURRANT FAMILY.

Corolla regular, polypetalous, superior. Calyx-lobes 5. Petals 5. Stamens 5. Style 2- or 4-cleft. Berry many-seeded, filled with pulp; placentas 2, parietal. Shrubs.

Flowers in racemes, or 1 to 3 together.

Berry crowned with persistent calyx. Flowers green. Leaves 3- to 5-lobed

1. Currant, Gooseberry.

36. SAXIFRAGE FAMILY.

Corolla regular, polypetalous, inferior or superior. Calyx-lobes 5 or 4. Petals 5 or 0. Stamens 5, 8, or 10. Styles 2. Capsule 2-celled, cells many-seeded; or rarely 1-celled, with 2 to 4 parietal placentas.

Calvx 4-lobed.

Stamens 8. Petals none. Calyx-lobes yellow. Ovary with 2 parietal placentas ... Calyx 5-lobed.

1. Golden Saxi-frage.

Stamens 5. Scales 5 with glandular bristles. Ovary with 4 parietal placentas Stamens 10. Styles 2.

2. Grass of Par-nassus.

Ovary 2-celled, cells many-seeded ..

3. Saxifrage.

37. UMBELLIFERÆ Soro								
15TLY FRUIT BRISTLY. HAIRY, OR SCALY.								
Lower I	G. Inv. bels My	White	Fr.	1000	1. SANICULA.			
爾掌	ri.	M Blue		變	2. ERYNGIUM.			
	6-10 Rays	Pink	(1)		36. TORDYLIUM.			
	2-5 Rays	Rose	•	灣	3. CAUCALIS.			
	G. Inv. none	3-4 Rays	7章	學	3. Do.			
		4-8 Rays	70	0	23. CHÆROPHYĽLUM.			
	G. Inv.	1-10 Rays	G.Inr. bets.	禁	4. ToriLis.			
		10-20 Rays	G Inr bcts.	為	5. DAÚCUS.			
		zo-30 Rays	0	0	6. SESELI.			
2 NDLY FRUIT GLABROUS, MORE OR LESS LATERALLY COMPRESSED.								
*	rr. 9 \$		Pinkish		7. HYDROCOTYLE.			
Lower L.	Stem L.	L. Veins parallel	Yeu.	Que	8 BUPLEURUM.			
樂	P. 177 15-20 Bets.	₫₫♀		2	9. ASTRANTIA.			
	8-12 Rays	Yeu green	L-leis	(E)	10. SMYRNIUM.			
	12-20 Rays	White	Ilets	8	11. ÆGOPODIUM.			
F.A.MESSER. DELY (Continued.)								

37. UMBELLATE FAMILY.

Corolia regular, polypetalous, superior. Calyx with 5 or 0 teeth. Petals 5. Stamens 5. Styles 2. Ovary 2-celled, cells 1-seeded. Flowers in umbels.

15TLY FRUIT BRISTLY, HAIRY, OR SCALY.

Lower leaves palmate. General involucre bracts 3-lobed. Petals erect, obovate, point long, inflexed, white. Fruit sub-globose, with booked spines, nearly circular in transverse section. Ridges obscure; stripes 1. Sanicle. (or vittæ) solitary ... Lower leaves roundish or plaited.

Flowers in heads. Petals erect, oblong, point long, inflexed, blue.

Fruit covered with chaffy scales and crowned with calyx teeth, nearly circular in transverse section. Carpels with 2. Eryngo. obscure ridges and slender solitary stripes Lower leaves simply pinnate.

Umbels of 6 to 10 rays. Petals obcordate, point inflexed, pink.

Fruit halry, much dorsally compressed, margin thickened. Carpels with slender ridges. Stripes 1 to 3

Umbels of 2 to 5 rays. Petals obcordate, point inflexed, rose, Fruit prickly, slightly laterally compressed. 36. Hartwort. Carpels deeply furrowed on the inner side. Stripes solltary 3. Hen's-foot. Lower leaves 2- or 3-pinnate. General involucre none. (See No. 4.) Umbels of 3 or 4 rays. Stem not swollen below the nodes. Fruit prickly, slightly laterally compressed, beak inconspicuous. Carpels deeply furrowed on the inner side; stripes solitary ... Umbels of 4 to 8 rays. Do. 3. Stem swollen below the nodes. Fruit with hooked prickles, laterally compressed, beak smooth upright. Carpels deeply furrowed on the inner side; without stripes ... 23. Chervil. General involucre present. Umbels of 1 to 10 rays. General involucre bracts entire. Fruit very prickly, laterally compressed. Carpels furrowed; ridges and spaces prickly; stripes solitary Umbels of 10 to 20 rays. General involucre bracts pinnatifid. Fruit prickly, dorsally compressed; stripes solitary ... 5. Carrot. Umbels of 10 to 30 rays.

Fruit with delicate hairs, slightly dorsally compressed. Carpels furrowed; stripes solitary 6. Seseli.

4. Hedge-parsley. 2NDLY FRUIT GLABROUS, MORE OR LESS LATERALLY COMPRESSED. Leaves peltate. Flowers in one head; or two heads one above the other. Stem creeping. Petals ovate, entire, pinkish. Fruit flattened; ridges fillform; stripes (or vittæ) none.. Fruit laterally 7. Penny-wort, White-rot. Lower leaves simple and entire; ovate, elliptic, or linear-lanceolate. Stem leaves perfoliate, lanceolate or linear, with parallel veins. Petals entire, with an involute broad point; yellow. Carpels 8. Hare's-ear. with prominent ridges; stripes none or solitary, or in threes 9. Astrantia. Leaves ternately compound.

Umbels of 8 to 12 rays. Petals elliptic, entire, yellowish-green. Leaflets broadly ovate.
prominent; stripes many
Umbels of 12 to 20 rays. Carpels deeply furrowed; rldges 10. Alexanders. Petals obovate, notched, white. Leaflets ovate-lanceolate. Carpels solld; ridges prominent; Gout-weed, 11. Bishop's-weed. strlpes none .. (Continued.)

	*	3-9 Rays	Up. L. seg.	8	12. A'PIUM.	
	P.Inr.0	10-15 Rays	Up.L.seg.	8	13. PIMPINELLA.	
	P.Inr.	2-8 Rays unequal	Pet. Stem wiry	8	14. PETROSELÍNUM.	
		2-8 Rays	DO BB	8	15. HELOSCIÁDIUM.	
			VpL.seg.	8	16. S/son.	
		1075 Rays	Of the second	8	17. SI'UM.	
	₫: ç	P.Inr.O	L-lets	9	18. TRINIA.	
	L.seg.all	8	5-10 Rays		19. CÁRUM.	
	Mark .		L. seg Fr.		20. CONÍUM.	
	G.Inr.	P	StemLseg	8	21. Physospermum.	
	G.Inr.O.	2-37 Rays	P. Inr.bct.		22. SCANDIX.	
		Yeu.	15-20 Rays	8	14. PETROSELÍNUM.	
			•	8	23. CHÆROPHYĽLUM.	
		P. Inr. bets		8	23. Do.	
		L-lets	6	8	24. CICÚTA.	
		Plant aromatic		8	25. MYRRHIS.	
F.A.MESSEN. DELY (Continued)						

(Continued.)

Leaves simply pinnets	
Leaves simply pinnate. Partial involucre none.	THE BUILDING
Umbels of 3 to 9 rays.	
Segments of upper leaves wedge-shaped. Carpels	TO DATE OF THE PARTY
with filiform ridges; stripes solitary	12. Celery.
Umbels with 10 to 15 rays.	(Pimpinel,
Segments of upper leaves linear, or ovate-serrate. Carpels with filiform ridges; stripes 3 or more	13. Burnet-Saxi-
Partial involucre present.	frage.
Umbels of 2 to 8 unequal rays.	(and o
Petals roundish, point inflexed. Stem wiry.	
Carpels with filiform ridges; stripes solitary	14. Parsley.
Umbels of 2 to 8 equal rays.	
Petals ovate, entire, with straight or inflexed	
points. Leaflets ovate, toothed, lobed, or in	
capillary segments.	15 Wansh want
Carpels with prominent ridges; stripes solitary Petals broadly obcordate, deeply notched, points in-	15. Marsh-wort.
flexed. Segments of upper leaves entire. Carpels	
with filiform ridges; stripes solitary, clavate	16. Stonewort.
Umbels of 10 to 15 rays.	
Petals obcordate, points inflexed. Segments of	SECTION SECTION
upper leaves oblong or lanceolate, toothed.	
Carpels with filiform ridges; stripes 3 or more	
together	17. Water-parsnip.
Leaves 2- or 3-pinnate.	
Flowers diœcious. Partial involucre none.	
Leaflets linear or subulate. Carpels with filiform	100
ridges, and a solitary stripe beneath them	18. Honewort.
Leaf-segments all linear. (See No. 22.)	
Petals obcordate, point inflexed.	
Umbels of 5 to 10 rays, with or without a	
general involucre. Carpels with filiform	Caraway, 19. Pig-nut,
ridges; stripes 1 to 3 together	19. Pig-nut,
General involucre present.	(Earth-nut.
Stem spotted.	
Segments of leaves ovate, toothed. Fruit ridges crenate. Carpels deeply furrowed; stripes none	20. Hemlock.
Stem without spots.	So. Memiock.
Segments of stem leaves linear-lanceolate. Car-	
pels furrowed, nearly globular; stripes solitary	21. Bladder-seed.
General involucre none (sometimes present in first	
umbels or young ones).	
Umbels of 2 or 3 rays.	
Partial involucre bracts, 2- or 3-lobed. Fruit	(Shepherd's
beak very long. Carpels deeply furrowed;	22. Needle.
ridges blunt; stripes none Petals roundish, entire, points inflexed.	Venus's Comb.
Umbels 15 to 20 rays. Fruit ovoid. Carpels with	(TOLLING COLLING
filiform ridges; stripes solitary	14. Parsley.
filiform ridges; stripes solitary Stem spotted, hairy, swollen at the joints.	
Fruit oblong. Carpels deeply furrowed; ridges	THE RESERVE OF THE PARTY.
blunt; stripes solitary	23. Chervil.
Partial involucre bracts ciliate.	THE RESERVE OF THE PARTY OF THE
Fruit oblong. Carpels furrowed; ridges only	23. Do.
apparent at top; stripes none Leaflets linear-lanceolate, acutely toothed.	23. Do.
Fruit ovoid. Carpels with broad, flattened ridges;	(Water Hem-
stripes solitary	24. lock,
Plant aromatic.	Cowbane.
Fruit oblong. Carpels with prominent hollow	
ridges; stripes solitary	25. Sweet Cicely.

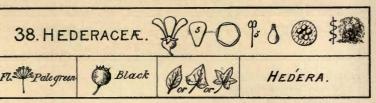
3 ROLY FRUIT GLABROUS, CIRCULAR OR NEARLY SOIN TRANSVERSE SECTION.																
I.OW.L	G. Inv.	Pl. White	Lilets Cor B		26 LIGUSTICUM.											
		Fl Yellowish	10-15 Rays		27. ME'UM.											
	- ANTINE	1 v. temmen	5-10 Rungs		28. SILAUS.											
	G. Inr.	Fl. White	L.seg		29. CRITHMUM.											
		1 4 11 7144	3-15 Ray:		30. ŒNANTHE.											
	#1-11 TL		P. Inv.		30. Do.											
	G.Inv. O.	MANNE	Marin.	MANNY.	MANNE	Market.	Marin-	Marian	MANNY.	Marin.	MANNE.	MANNE.	Fl. Whate	Do.	0	31. CORIANDRUM.
			Do.		32. ÆTHÚSA.											
		Fl.Yellow	P.Inr.		33. FŒNICULUM.											
4 <u>i</u>	令 I	FRUIT GLA	BROUS, DO	RSALLY	COMPRESSED, WINGED.											
Lon: L	White	Up.L. (See Nº38)	Fr.		34. HERACLEUM.											
	Yeu.	G.Inv. 0	StemL.seg.		35. PASTINACA.											
To the second	Pink	G.Inv.	Stem L. seg.	漢道	36 TORDYL'IUM.											
	Pink	L-lets	Fr. 2-winged	\$	37. ANGELICA.											
The state of the s	Vor Yell	L.seg.	Fr. I-winged	\$	38.PEUCEDANUM.											

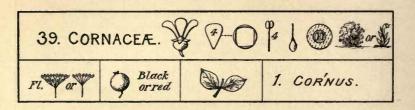
3RDLY FRUIT GLABROUS, CIRCULAR, OR NEARLY SO, IN TRANSVERSE SECTION.

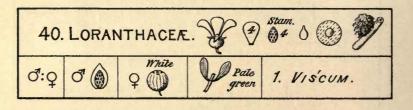
Lower leaves 2-ternate, with large leaflets. General involucre present. Flowers white. Leaflets ovate or 3-lobed. Carpels with many prominent ridges; stripes (or vittæ) many	26. Lovage.
Lower leaves 2- or 3-pinnate.	
General involucre present. Flowers yellowish. Umbels 10 to 15 rays. Leaf-segments linear,	(Meu,
fine. Carpels with prominent ridges; stripes	27. Spignel,
many	Bald-money.
Umbels 5 to 10 rays. Leaf-segments lanceolate. Carpels with prominent ridges; stripes many	28. Pepper Saxi-
Flowers white.	frage.
Umbels 15 to 20 rays. Leaf-segments lanceolate, fleshy. Carpels with sharply elevated ridges;	
stripes many	29. Samphire.
Umbels 3 to 15 rays. Styles long sub-erect. Carpels more or less corky; ridges blunt;	
stripes solitary	30. Water Drop- wort.
General involucre none.	(WOI'.
Flowers white. Partial involucre of 5 to 10 bracts. Carpels more	
or less corky; ridges blunt; stripes solitary	30. Do.
Partial involucre of 3 short bracts. Carpels with secondary ridges conspicuous;	
commissure with 2 stripes	31. Coriander.
Partial involucre of 3 long bracts.	32. Fool's Parsley.
Carpels with prominent ridges; stripes solitary Flowers yellow.	oz. Foois Farsiey.
Partial involucre none. Carpels with prominent	OO Flammal
blunt ridges; stripes solitary	33. Fennel.
4THLY FRUIT GLABROUS DORSALLY	OMPRESSED

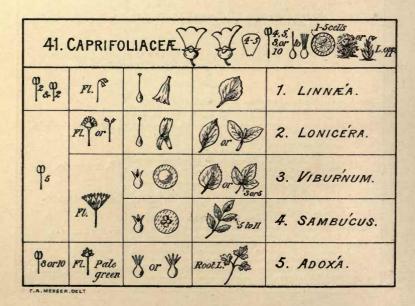
4THLY FRUIT GLABROUS, DORSALLY COMPRESSED, WINGED.

Lower leaves pinnate, with 3 or more large broad rough leaflets. Petals obcordate, points inflexed, white. Upper leaves with a greatly dilated petiole. (See No. 38.) Fruit with a dilated margin. Carpels with club-shaped stripes (or vitte) half-way down; ridges slender	34. Cow-parsnip,
Lower leaves simple plnnate. Petals roundish, entire, points inflexed, yellow. General involucre none. Segments of stem leaves ovate. Carpels with slender ridges Petals obcordate, points inflexed, plnk. General involucre present. Segments of stem leaves lanceolate. Carpels hairy, with a thickened margin; ridges slender; stripes 1 to 3 together	35. Parsnip. 36. Hartwort.
Lower leaves 2- or 3-pinnate. Petals broadly lanceolate, entire, incurved, pink. Leaflets lanceolate or ovate. Fruit 2-winged on each side. Carpels with 3 thickened ridges; stripes solitary Petals obcordate, or ovate, points inflexed, yellow or white. Leaf-segments linear or lanceolate, entire; or ovate or 3-lobed, toothed. Fruit 1-winged on each side. Carpels with 3	37. Angelica.
dorsal and 2 inconspicuous lateral ridges; stripes solltary, or 1-3 together	38. Hog's-fennel.









Corolla regular, polypetalous, superior. Petals 5, valvate in the bud. Stamens 5. Styles (5) united into one. Fruit a 3- to 5-seeded berry. Climbing shrubs. 38. IVY FAMILY, {

Flowers in umbels, pale green.

Fruit a black berry. Leaves ovate, or 3- or 5-lobed

1. Ivy.

39. DOG-WOOD FAMILY.

Corolla regular, polypetalons, superior. Petals 4, valvate in the bud. Stamens 4. Style 1. Frult a drupe, with a 2-celled nut, cells 1-seeded. Shrubs or herbs.

Flowers in cymes or umbels.

Berry black or red. Leaves opposite, ovate

1. Dog-wood.

40. MISTLETOE FAMILY.

Corolla regular, polypetalous, superior. Petals 4. Stamens 4; anthers sessile, many-celled. Ovary with a sessile stigma. Fruit a 1-seeded berry. Parasitical shrubs on trees.

Diecious. Male: Anthers adnate to petals, many-celled. Female: Berry white, 1-seeded, crowned with calyx. Leaves opposite, obovate-lanceolate

1. Mistletoe.

41. HONEYSUCKLE FAMILY.

Corolla regular or irregular, monopetalous, superior. Corolla-lobes 4 or 5. Stamens 4, 5, 8, or 10. Styles 1 to 5. Fruit usually succulent, 1-to 5-celled, cells 1- (rarely many-) seeded. Shrubs or herbs. Leaves opposite.

Stamens 4, 2 long and 2 short.

Flowers in pairs, drooping. Style 1, filiform, stigma capitate. Corolla campanulate. Leaves broadly ovate ..

1. Linnæa.

Stamens 5.

Flowers in heads or pairs. Style 1, filiform, stigma capitate. Corolla ringent. Leaves ovate, distinct or connate

2. Honeysuckle, Woodbine.

Flowers in cymes.

Stigmas 3, sessile. Berry 1-seeded. Leaves ovate

3. Guelder-rose, Wayfaring-tree.

pinnate, leaflets 5 to 11 ..

4. Elder.

Stamens 8 or 10.

Flowers in a head, pale green.

Styles 4 or 5. Root leaves ternate 3-lobed ...

5. Moschatel.

42. RUBIACEÆ. 7 4-5 0 4-5 0 4-1010					
φ,		QD	1. RÚBIA.		
	\$ W	GD	2. GA'LIUM.		
Φ.4	& W	op op	3. ASPERULA.		
	4 4	Ç	4. SHERAR'DIA.		

43. VALERIANACEÆ. To Paris lay Our					
φ,	Spurred	Fr	Fl.red orwhite	1. CENTRANTHUS.	
op J3	Gibbous	The state of the s	Fl.pink orwhite	2. VALERIÁNA.	
	¥	ð	Fl.lilac or pink	3. VALERIANELLA.	

	SACACEÆ.	A M	4-5 P4 6
Spirious	Fruit	Inv. bracts. for	1. DIPSACUS.
Scaly W	4.5	Do. forf	2. SCABIOSA.
Hairy		Do. 🔘	3. KNAÚTIA.

42. MADDER FAMILY.

Corolla regular, monopetalous, superior. Corolla-lobes 4 or 5. Stamens 4 or 5. Styles 1, stigmas 2. Fruit didymous (dry or rarely succulent), cells 1-seeded. Leaves in a whorl of 4 to 10 leaflets.

Stamens 5.

Corolla rotate, 5-lobed.

1. Madder. Fruit didymous, succulent

Stamens 4.

Corolla rotate, 4-lobed.

Fruit didymous, dry ... 2. Bedstraw.

Corolla funnel-shaped.

Fruit didymous, dry .. 3. Woodruff.

Corolla funnel-shaped, tube long.

Fruit didymous, crowned with calyx teeth ... 4. Field Madder.

43. VALERIAN FAMILY.

Corolla regular, monopetalous, superior. Corolla-lobes 5. Stamens 1 or 3. Style 1 entire, or bifid. Fruit 1-celled, 1-seeded; or with 1 fertile and 2 abortive cells.

2. Valerian.

Stamen 1.

Corolla spurred.

Fruit crowned with a feathery pappus.

1. Red Valerian, Spur Valerian. Flowers red or white

Stamens 3.

Corolla gibbous.

Fruit crowned with a feathery pappus.

Flowers pink or white ... Corolla obconic (neither spurred nor gibbous).

Fruit crowned with a cup-shaped border.

3. Corn-salad, Lamb's Lettuce. Flowers lilac or pink ...

44. TEASEL FAMILY.

Corolla regular, monopetalous, superior. Flowers in heads. Corolla-lobes 4 or 5. Stamens 4, anthers free. Style simple. Fruit 1-celled, 1-seeded.

Receptacle with spinous scales.

Calyx-limb entire, cup-shaped.

Involucre bracts linear, prickly or toothed and ciliate 1. Teasel.

Receptacle scaly.

Calyx-limb with 4 or 5 bristles.

Involucre bracts lanceolate or linear, hairy 2. Scabious.

Receptacle hairy.

Calyx-limb with about 8 teeth.

Involucre bracts broad, leafy, hairy 3. Field Scabious.

45. COMPOSITE. War in For For Stan.								
1 iii	1 miles 7/7							
Fruit	FI. Y yell.	Involucre	Low Lay	1. LAPSANA.				
Ō	FI. W yell.		L.rad.	2. ARNOSERIS.				
U	Fl. blue		L. 5/3	3. CICHÓRIUM.				
	*	Mor W	30-60	4. TARAXACUM.				
7	A.M.	or	5-20	5. LACTÚCA.				
	Y	0	30-60	6. CRÉPIS.				
	Section of Fr:	4		6. Do.				
	Plant watery		7	7. HIERA'CIUM.				
0	Section of Fr.	Fl. blue	Bristly 6	8. MULGÉDIUM.				
	Plant milky	Fl. yell.	Silky-	9. Sońchus.				
	Scaly	(3)	W or J	10. HYPOCHÆRIS.				
	Naked	9	· L. o	11. TRAGOPOGON.				
	7	*	L.	12. HELMIŃTHIA.				
	Hairs	Jour Tinner Froms	*	13. THRIŃCIA.				
8	IIIII oryyyy	Smooth	* or W	14. LEONTODON.				
F.A.MESSER.DI	Bristles 1999 or IIII	Wrinkled		15. Picris.				

F.A.MESSER. DELT

(Continued.)

45. COMPOSITE FAMILY.

Corolla regular, monopetalous, superior. Flowers consisting of many ligulate or tubular florets, collected together in heads of all ligulate florets, or all tubular, or both ligulate and tubular florets; surrounded by a common involucre. Stamens 5; anthers united into a tube. Style simple, bifid. Fruit 1-celled, 1-seeded, an achene.

1STLY FLOWER-HEADS WITH ALL THE FLORETS LIGULATE.

Fruit without either scales or pappus. Flower-heads in panicles; stem leafy. Flowers yellow.	
Involucre of 1 row of bracts, and a few short ones	
at base. Lower leaves lyrate	1. Nipplewort.
Fruit crowned with an elevated ridge, angular. Flower-heads on slightly branched leafless stalks.	
Flowers yellow.	(Comingle Cup
Involucre of 1 row of bracts, and a few short ones at	Swine's Suc-
base. Leaves radical, obovate or oblong, toothed	2. Dwarf Nipple-
Fruit crowned with many stiff bristles. Flower-heads in pairs, nearly sessile. Flowers blue.	wort.
Involucre of 2 rows of bracts, the outer one half	THE PRESENT
the length of the inner. Lower leaves runcinate	3. Chicory.
Fruit with a hairy stalked pappus. (See N.B.)	THE STATE OF THE S
Flower-heads on simple stalks. Involucre of 2 rows of bracts, the outer spreading	THE RESERVE TO SE
or erect. Florets 30 to 60	4. Dandelion.
Flower-heads on branched stalks.	
Involucre imbricated in several series, or of 1 row	Branch and
of bracts and a few short ones at base. Flowers	5. Lettuce.
5 to 20	o. Devideo,
and more or less lax. Florets 30 to 60	6. Hawk's-beard.
Fruit with a hairy sessile pappus.	- 200
Section of fruit circular. Plant watery. Involucre of 2 rows of bracts, the outer one short	- 1 A T - 1 3 B
and more or less lax. Fruit tapered upwards	6. Do.
Involucre of many imbricated bracts. Fruit trun-	
cate, not beaked	7. Hawkweed.
Section of fruit elliptic. Flowers blue. Fruit with a bristly pappus	8. Blue Sowthistle.
Flowers yellow. Fruit with a bristly pappus	9. Sowthistle.
Fruit with a feathery stalked pappus.	0. 0011 122-012
Receptacle scaly.	THE RESERVE OF THE PERSON NAMED IN
Involucre bracts imbricated in several series. Stem leafless, branched or simple	10. Cat's-ear.
Receptacle naked (not scaly).	IV. Cars-car.
Involucre simple. Leaves grass-like, dilated at the	
base	11. Goat's-beard.
Involucre of 2 rows of bracts, outer ones broad, leaf-like, and bristly. Leaves lanceolate, rough	
with hooked bristles from tubercular bases	12. Ox-tongue.
Fruit with a feathery sessile pappus.	14, 41, 14, 5
Plants with hairs, simple or forked.	
Outer row of fruits with a short scaly pappus. Inner rows of fruits with a feathery pappus.	- TO ENTER THE
Stem simple	13. Thrincia.
Fruit smooth, all with a feathery pappus.	
Stem simple or branched, leafless	14. Hawkbit.
Fruit wrinkled in upper parts, all with a feathery	HELD AND LODGE
pappus. Stem branched, leafy	15. Picris.
N.B.—As soon as the flowers are expanded, indications of the	
growth of a stalk to the pappus may generally be detected.	THE REPORT OF THE PARTY OF THE

2 FLOWER-HEADS WITH ALL THE FLORETS TUBULAR.					
	L. glabrous	Fl.yell.	For *	FILV	16. TANACÉTUM.
Jor	L. cottony	Fl.yell.	L	Recept.	17. Diótis.
	L. county	Fl.yell. or brown	/紫紫	冰葉	18. ARTEMISÍA.
A 22	L.opp.	Fl.yell.	Por Me	Inv.	19. BIDENS.
				Receptacle of	20. FILA'GO.
		Fl.yell.	L for g	7 9	21. GNAPHA'LIUM.
		0, 0, 0,,,,	conting	Sub.	22. ANTENNA'RIA.
		(Sec. N. 7.29, 43, 46)	I.	Fl. yell.	23. LINOSÝRIS.
	L. without prickles		L.rad.	FI. Slem	24. PETASITES.
			X	Q 1	25. ARCTIUM.
ar		Fl.purp.	L'opp.	F1. \$ \$5-6	26. EUPATORIUM.
Y		orrose	Lon: L. StemL	Winv.	27. SERRATULA.
			Low Locationy	W0 2	28. SAUSSUREA.
		(Sec. 1922)	修業素	商 。燕	29. CENTAÚREA.
	I.prickly	Fl.yell.	Receptacle	企	30. CARLÍNA.
				*秦季	31. SILYBUM.
ASSET TO		Fl. pur	Fl. purp. or white	1	32. CARDUUS.
F.A. MESSER			7	*	33. ONOPORDUM.

(Continued.)

2NDLY FLOWER-HEADS WITH ALL THE FLORETS TUBULAR.

Fruit naked or crowned with an elevated ridge. Leaves glabrous.	
Flowers yellow. Leaves 1- or 2-pinnatifid.	10 5
Flower-heads corymbose	16. Tansy.
Leaves cottony. Flowers yellow. Leaves oblong, blunt, densely	
cottony. Receptacle scaly	17. Cotton-weed.
Flowers yellow or brown. Leaves linear, or 1- or	
2-pinnatifid, segments linear or lanceolate.	18. Wormwood.
Flower-heads in a loose panicle or leafy raceme Fruit crowned with 2 to 5 stiff bristles.	10. Worldwood,
Leaves opposite.	Desire Carlotte
Flowers yellow. Leaves lanceolate, or 2- to 5-cleft,	
toothed. Outer bracts of involucre leafy, spreading	19. Bur-Marigold.
Fruit with a hairy or feathery pappus.	
Leaves without prickles or stiff bristles. Flowers yellow or brown. (See Nos. 29, 43, and 46.)	
Leaves linear, lanceolate, or obovate, cottony.	
Receptacle conical, scaly at the margin. Heads	
hermaphrodite	20. Cudweed.
Receptacle flat or slightly convex, not scaly.	21. Do.
Heads hermaphrodite	21. Do. 22. Everlasting.
Leaves linear, glabrous.	
Flower-heads in a terminal corymb, yellow	23. Goldilocks.
Flowers purple, lilac, or rose. (See No. 22.)	
Leaves radical, roundish-cordate.	
Flower-heads in terminal oblong panicles. Flowers before leaves. Stem leaves with	
greatly dilated stalks	24. Butterbur.
Leaves ovate-cordate, very large.	
Involucre bracts hooked	25. Burdock.
Leaves opposite, deeply divided into 3 to 5	
lanceolate, toothed, lobes.	
Flower-heads in compact corymbs. Florets 5 or 6 in a head	26. Hemp-Agri- mony.
Lower leaves pinnatifid, toothed. Stem leaves	mony.
pinnatifid at base, toothed.	
Involucre imbricate, bracts glabrous unarmed	27. Saw-wort.
Lower leaves ovate-lanceolate, cottony beneath.	
Involucre imbricate. Flower-heads few, in a	28. Saussurea.
Lower leaves linear-lanceolate, ovate, lyrate or	No. Naussurva.
pinnatifid.	
Involucre bracts fringed or thorny	29. Knapweed.
Leaves with prickles.	
Flowers yellow.	
Receptacle with bristly scales. Outer involucre bracts leaf-like; inner bracts	
linear (yellow)	30. Carline Thistle.
Flowers purple or white.	00. 3011110 1110010.
Receptacle with bristly scales.	
Involucre bracts with strong thorns.	Of MP111 M1 1 / 1
(Leaves milky veined)	31. Milk Thistle.
Involucre bracts prickly. (Pappus hairy or feathery, deciduous)	32. Thistle.
Receptacle honeycombed.	Oz. Inibut.
Involucre bracts prickly.	
(Pappus rough, deciduous)	33. Cotton Thistle.
(Continued)	

3 FLOWERHEADS WITH BOTH TUBULAR & LIGULATE FLORETS.										
		Receptacle		34. GALINSOGA.						
	While ray		Lraa (f)	35. BEĽLIS.						
00 ar 0		4	ar ar	36. MATRICÁRIA.						
00.0	orna.	学	ar the	37. ANTHEMIS.						
	Whiteoryell.	The	W for	38. ACHILLE'A.						
	ray	7	stem for fr	39. Chrysanthemum.						
		Involucre	LOWL Fr. Cy	40. INULA.						
		***************************************	L. 2	40. Do.						
			L. for sleshy	40. Do.						
			Yell.ray						Bar J	41. PULICÁRIA.
				(see Nº 46)	Stem L. \$\int_{5-12}	42 SOLIDAGO.				
Vor V	Teu.ray	4	Lran	43. SENÉCIO.						
		/P/Y)	Jor (g)	43. Do.						
		1 Row	L. Collony	44. Tussila'go.						
		2-3 Rows	Root L. For	45. Doronicum.						
		A many Roms	L. for Chairy	46. ERIGERON.						
F.A MESSER. DE	Purp. or blue ray.	one rom	L. A glabrous	47. ASTER.						

3 RPLY FLOWER-HEADS WITH BOTH LIGULATE AND TUBULAR FLORETS.

	,
Fruit naked, or crowned either with a ridge or with scales.	
Flower-head with a white ray. Receptacle conical, scaly.	
Fruit crowned with scales, hispid. Leaves opposite, ovate, toothed	34. Galinsoga.
Receptacle ultimately conical, naked (not scaly). Flower-head solitary. Leaves radial, spathulate	35. Daisy.
Leaves 2- or 3-pinnate with capillary segments, or simply pinnate with broad segments	36. Feverfew
Flower-head with a white or yellow ray. Receptacle convex or conical, scaly.	
Leaves 2-pinnate with capillary segments, or pinnatifid with linear-lanceolate segments Receptacle nearly flat, scaly.	37. Chamomile.
Flower-heads in a terminal corymb. Leaves linear- lanceolate, finely toothed; or 2-pinnatifid with	Yarrow.
a lanceolate outline, and linear segments Receptacle semi-convex.	38. Yarrow, Millefoil.
Stem branched, flower-heads solitary. Stem leaves oblong, blunt, toothed or lobed	39. Ox-eye Daisy.
Fruit with a hairy or feathery pappus. Flower-head with a yellow ray.	
Involucre imbricated in many rows of broadly ovate leafy bracts. Lower leaves stalked, elliptic-oblong. Fruit	
quadrangular	40. Elecampane.
at point. Leaves ovate-lanceolate, toothed. Flowers in	
Involucre imbricated in many rows of erect bracts. (See No. 46.)	40. Spikenard.
Leaves oblong, with a cordate or narrow clasping	40. Golden Sam- phire.
base. Pappus in 2 rows, the outer short toothed	41. Fleawort, Fleabane.
Leaves lanceolate, recurved. Flower-heads of 5 to 12 florets	42. Golden-rod.
at base. Leaves various; lanceolate, lyrate, or variously	
pinnatifid	43. Ragwort.
Lower leaves broadly lanceolate, toothed; or oblong and nearly entire	43. Do.
beneath. Flower-heads solitary	44. Colt's-foot.
Root leaves cordate or ovate, toothed, on long stalks	45. Leopard's- bane.
Flower-heads with a purple or blue ray. Ligulate florets in many rows	Share they to
Leaves linear or lanceolate, hairy Ligulate florets in one row	46. Fleabane. 47. Starwort.
Leaves linear, lanceolate, glabrous	Tr. Suar WUI t.

46. CAMPANULACEA. FOR TO SO				
Stam.	Cor:	FL	1. LOBÉLIA	
Me	A	STE .	2. JASÍONE.	
	>	or \$	3. Рнутеймя.	
φ	A	Tr.	4. CAMPANULA.	
	. 0	9	5. WAHLENBERGIA.	
		*	6. SPECULARIA.	

47. ERICACEÆ. WAY TO THE WAY					
	Q	980110	Jors	Black or red	1. VACCINIUM.
		Cal	Cor. Cal. Bct.	L1	2. CALLÚNA
		45	m-Cor.	L. For	3. ERÍCA.
All la			Cal.	L.	4. MENZIÉSIA.
(人)	R	95 8	W-Cor.	z. D	5. AZÁLEA.
И	×.		**	9 9	6. Arbutus.
		900		0	7. ARCTOSTAPHYLOS.
			(Sec N14)	L/m	8. ANDROMEDA.
*	A	98 8	L.O Scales	II. Dull yell.	9. MONOTROPA.
V	H	910 \$	Por	Fl. for White or pink	10. PYROLA.

Flankhile Ber. Scarlet L. D.	or 1. ILEX.

46 RELI-FLOWER FAMILY

Corolla regular or irregular, monopetalous, superior. Corolla-lobes 5. Stamens 5, anthers cohering or free. Style 1, stigmas 2 or 3.

Capsule 2- to 5-ce	elled, cells many-seeded.
Stamens 5, anthers cohering. Corolla irregular, 2-lipped, 5-lobed. Flowers in racemes	 Lobelia. Sheep's-bit.
Corolla somewhat 2-lipped, with 5 long linear lobes. Flowers in heads, or in dense spikes Corolla bell-shaped, with 5 broad lobes. Capsule inferior	 Rampion. Bell-flower. Wahlenbergia. Specularia.

47. HEATH FAMILY.

Corolla regular, monopetalous or polypetalous, inferior; or monopetalous, superior. Calyx-lobes 4 or 5. Corolla-lobes 4 or 5. Stamens 8, 10, or 5; anthers opening by pores, often awned. Fruit a 4- or 5-celled berry, or a 2- to 5-celled capacity collar property. - to 5-celled capsule; cells many- (rarely 1-) seeded. Shrubs or herbs.

Shrubs. Corolla monopetalous. Ovary inferior. Stamens 8 or 10, with or without awns. Corolla globular, bell-shaped or rotate. Berry black or red Ovary superior. Stamens 8, with or without awns. Calyx 4-lobed. Calyx longer than corolla, surrounded by 4 green bracts.

Leaves very small, closely imbricated in 4 rows Calyx much shorter than the ovoid corolla. Leaves 4 in a whorl, or 3 in a whorl and clustered Leaves clustered Stamens 5, awnless. Calyx 5-lobed. Corolla bell-shaped. Leaves opposite, revolute. Capsule 2- or 3-celled Stamens 10, awned. Calyx 5-lobed. Tall shrubs. Berry granulated, 5-celled, cells many-seeded Low-creeping shrubs. (See No. 4.)

Berry smooth, 5-celled, cells 1-seeded

Leaves lanceolate, revolute. Fruit a capsule, 5-celled, cells many-seeded Herbs. Corolla polypetalous. Ovary superior. Stamens 8 or 10, anthers opening transversely. Stigma peltate. L. none, scales. Fl. in racemes, dull yellow ... Stameus 10, anthers opening by pores. Stigma 5-lobed. Leaves orbicular or ovate. Flowers in racemes or solitary,

1. Bilberry, Cranberry.

2. Ling.

3. Heath. 4. Menziesia.

5. Azalea.

6. Strawberrytree.

7. Bearberry.

8. Wild Rose-mary.

9. Yellow Bird's-

10. Winter-green.

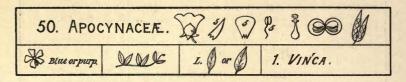
48. HOLLY FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 4 or 5. Corolla-lobes 4 or 5. Stamens 4 or 5. (Stigmas minute Corolla-lobes 4 or 5. Stamens 4 or 5. (Stigmas minute 4 or 5.) Fruit fleshy, seeds stony 4 (or 5). Shrubs or trees.

Flowers in axillary clusters. Berry globular, scarlet. Leaves nearly entire or spinous 1. Holly.

white or pink





51. GEN	TIANACEÆ		\$ 04,5, Yor \ ar8
Fl. blue or purp.	中华 安 华 华 华 华	W _b	1. GENTIÁNA.
Pl.pinkorred	95 3	9	2. MENYANTHES.
(See.N? 4)	P. \$	Y to	3. ERYTHRÆA
	4 基	Y	4. CICENDIA.
Fl. Yellow	φ, 🛞	(A)	5. LIMNANTHEMUM.
	9. B	Stem L.	6. CHLÓRA.



53. Co	NVOLVULAC	ER W	1 (5) Ps York (19)
X	J-Cal	A. Aor A	1. CONVOLVULUS.
8	Fl. Fr.	L.none. Parasite	2. CUSCUTA.

49. JESSAMINE FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 4 or 0. Corolla-lobes 4 or 0, valvate in the bud. Stamens 2. Style 1, stigma 2-lobed. Fruit a berry, 2-celled, cells 1- or 2-seeded; or a samara, 1- or 2celled, cells 1-seeded. Shrubs or trees.

Shrubs. Corolla 4-lobed. Fruit a berry, 1- or 2-seeded. Leaves opposite, elliptic-lanceolate Trees. Corolla none. Fruit a samara, 1- or 2-celled,

1. Privet.

cells 1-seeded. Leaves pinnate, leaflets 7 to 11, serrate ...

2. Ash.

50. PERIWINKLE FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 5. Corolla-lobes 5. Stamens 5, filaments bent. Stigma capitate, with a ring at the base. Fruit 2 follicles.

Corolla salver-shaped, lobes oblique, blue or purple. Prostrate herbs with opposite leaves. Leaves lanceolate or ovate

1. Periwinkle.

51. GENTIAN FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 4, 5, or 8. Corolla-lobes 4, 5, or 8. Stamens 4, 5, or 8. Style 1, bifid or entire. Capsule 1- or 2-celled by inflexed margin of valves; many-seeded.

Flowers blue or purple.

Stamens 5 or 4. Corolla funnel- or salver-shaped, 5or 4-lobed.

Leaves opposite, linear-lanceolate or ovate Flowers pink or red. (See No. 4.)

Stamens 5. Corolla 5-lobed, hairy within. Water plants with ternate leaves .. Stamens 5. Corolla 5-lobed, tube long.

Leaves opposite, varying from oblong to ovate

Flowers yellow.

Stamens 4. Corolla 4-lobed, tube long. Leaves opposite, linear-lanceolate .. Stamens 5. Corolla 5-lobed, ciliated at the margin.

Leaves orbicular-cordate, floating Stamens 8. Corolla 8-lobed.

Stem leaves connate

2. Buckbean, Bogbean.

1. Gentian.

3. Centaury.

4. Gentianella.

5. Limnanth.

6. Yellow-wort.

52. JACOB'S LADDER FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 5. Corolla-lobes 5. Stamens 5, unequal. Style 3-fid. Capsule 3-5, unequal. celled, cells many-seeded.

Corolla rotate (tube very short), blue or white. Flowers in a terminal panicle. Leaves pinnate

1. Jacob's Ladder.

53. Convolvulus Family.

Corolla regular, monopetalons, inferior. or calyx-lobes 5. Corolla-lobes 5 (plaited in the bud). Stamens 5. Style 1, bifld, or 2. Capsule 4-seeded, 1- or 2-celled. (Twining herbs.)

Style 1. Bracts 2, close to or distant from calyx. Leaves ovate-sagittate, or sagittate with truncate lobes, or reniform

1. Convolvulus, Bindweed.

Styles 2. Flowers in globular clusters. Leaves none. Parasite

2. Dodder.

54. BORAGINACEÆ. 50 50 6 Lale.				
	Calyx	Spotted	1. PULMONÁRIA.	
77	W	Fleshy glaucous	2. MERTENSIA.	
No scales intube	W	Blue	3. ECHIUM.	
		While, yell, blue, purp.	4. LITHOSPERMUM.	
1	Corolla scale	Cor. yell-white	5. Ѕүмрнүтим.	
	1	Corolla blue	6. BORÁGO.	
223	**	Corolla blue	7. Lycorsis.	
Scalesintube	Scalesinhube	Fruit Calyx Pitted	8. ASPERUGO.	
(F)	3	Hooked prictles	9. CYNOGLOS'SUM.	
	U	Mrinkl Pla	10. ANCHÚSA.	
		Smooth Fly	11. MYOSÓTIS.	

55. SOLANACEÆ. Sor Sor Sor Sor Latt.				
	Purp. or white	MITTS or	1. SOLÁNUM.	
00	Parple	FI.	2. ATROPA.	
	Bluish	Cal.	3. LYCIUM.	
3	Greenish yellor	Plant riscid	4. HYOSCYAMUS.	
	White White	n. Cal.	5. DATURA.	

54. BORAGE FAMILY.

Corolla regular, monopetalous, inferier. Calyx-lobes 5. Corolla-lobes 5. Stamens 5. Style 1, from the base, of ovary. Ovary 4-lobed. Capsule separating into 4 1-seeded nuts. Leaves alternate.

Corolla with no scales in the tube.	
Calyx tubular, toothed.	
Leaves ovate-lanceolate, spotted	1. Lungwort.
Calyx deeply 5-cleft, segments ovate.	
Leaves ovate-acute, fleshy, glaucous	2. Oyster Plant.
Calyx deeply 5-cleft, segments linear or lanceolate.	(Viper's
Corolla oblique, more or less irregular, blue	3. Bugloss.
Corolla regular, white, yellow, blue, or purple	4. Gromwell.
Corolla with scales in the tube.	
Corolla tubular, with 5 small teeth. Scales lanceo-	
late-subulate.	
Corolla yellowish-white	5. Comfrey.
Corolla rotate; anthers forming a cone in the centre.	
Corolla blue	6. Borage.
Corolla funnel-shaped, with a slightly bent tube, and	
rather oblique.	
Corolla blue	7. Bugloss.
Corolla with a straight tube and regular spreading limb	
Fruit pitted. Calyx-lobes with small teeth between	
them	8. Madwort.
Fruit depressed, covered with hooked prickles	9. Hound's-
Fruit wrinkled. Flowers in spikes with bracts	10. Alkanet.
Fruit smooth. Flowers in racemes without bracts	11. Forget-me-not
2 and baloom, 2 to word in the course without blacks	11. (Scorpion-grass

55. NIGHTSHADE FAMILY.

Corolla regular, monopetalous, inferior. Calyxlobes 5 or 2. Corolla-lobes 5. Stamens 5. Style 1; stigma simple or capitate. Fruit a 2-celled berry or capsule, many-seeded. Leaves alternate.

Fruit an oblong or roundish berry. Corolla rotate, purple or white; anthers close together. Flowers in drooping cymes, or in umbels ... 1. Nightshade. Corolla bell-shaped, purple. Dwale, 2. Deadly Night-Flowers solitary, axillary, on short stalks Corolla funnel-shaped; tube short; lobes patent; bluish. shade. 3. Box-thorn. Anthers with woolly filaments. Calyx 2-lipped ... Fruit a smooth capsule, opening transversely; crowned with persistent calyx. Corolla funnel-shaped; tube short; lobes unequal; 4. Henbane. greenish-yellow, with purple veins Flowers in one-sided leafy spikes. Plant viscid. Fruit a prickly capsule, opening longitudinally; 4-valved, cells 2, partially bipartite. Calyx deciduous. Corolla funnel-shaped, angular, white. Flowers solitary. Calyx tubular .. 5. Thorn-apple.

56. OROB	ANCHACEA		2 ars 1 L.none Parasites
cal. Wy or W	Pl.	Parasite on	1. OROBANCHE.
Cal.	PI.	Do. on	2. LATHREA.

57. SCROPHULARIACEÆ. 4.5) 100 000 000 000 0000 0000 0000 00000000					
φ 2	Cal.	Cor.	Pl.blue or pink	1. VERONICA.	
95	W	3	Fl.yell.or white	2. VERBASCUM.	
	-	Pink or purp.		3. PEDICULARIS.	
		Neu.	Capsule	4. RHINANTHUS.	
		Yell or purp		5. MELAMPYRUM.	
	A	Yell or purp.		6. BARTSIA.	
		White or pink		7. EUPHRÁSIA.	
φφφ		Spur	Fl. blue parp. aryell.	8. LINÁRIA.	
		Gibbous	Flpink purpor white	9. ANTIRRHÍNUM.	
	AN	Dull purp or yell.	Stem [], rarely ()	10. SCROPHULÁRIA.	
	V	Red or White	PL. L.	11. DIGITALIS.	
		Yell.		12. MIMULUS.	
		Rose Rose	米米	13. LIMOSELLA.	
		E Pink & yell	9	14. SIBTHORPIA.	

56. BROOMRAPE FAMILY.

Corolla irregular, monopetalous, inferior. Calyxlobes 2 or 4. Stamens 4, didynamous. Style 1, stigma 2-lobed. Fruit capsular, 1-celled, with many minute seeds, placentas 2 (or more) parietal. Leaves none. Parasites.

57. FIGWORT FAMILY.

Corolla irregular, monopetalous, inferior. Calyx-lobes 4 or 5. Stamens 4, didynamous, or 2 or 5. Style 1, bifid. Fruit a capsule, 2-celled, cells many- or 2-seeded.

O7. HUWUNI I AMILI. bind. Fruit a capsule, seeded.	2-celled, cells many- or 2-
Stamens 2. Calyx 4- (rarely 5-) lobed.	
Corolla rotate, unequally 4-lobed, lower lobe the smallest. Flowers pink or blue	1. Speedwell.
Stamens 5, 2 or more hairy. Calyx 5-lobed. Corolla rotate or concave, lobes 5, unequal. Flowers yellow or white	2. Mullein.
Stamens 4, didynamous. Calyx with 2 to 5 irregular jagged lobes, unequal. Corolla ringent, upper lip laterally compressed, lower 3-fid, pink or purple.	
Leaves pinnatifid	3. Red Rattle, Lousewort.
lower lip 3-lobed, yellow. Capsule blunt, cells many-seeded	4. Yellow Rattle.
lower lip 3-fid, yellow or purple. Capsule obliquely acuminate, cells 1- or 2-seeded Corolla ringent, upper lip not laterally compressed, yellow or purple.	5. Cow-wheat.
Capsule acuminate, cells many-seeded Corolla tubular, 2-lipped, upper lip 2-lobed, lower lip 3-lobed, white or pink.	6. Bartsia.
Capsule blunt, cells many-seeded Calyx 5-lobed, or 5-toothed. Corolla personate, spurred.	7. Eye-bright.
Flowers blue, purple, or yellow	8. Toad-flax. 9. Snapdragon.
Corolla globose, dull purple or yellow. Stem 4-angled, rarely 5-angled Corolla bell-shaped, oblique, red or white.	10. Figwort.
Flowers in a terminal spike. Leaves ovate Corolla ringent, upper lip folded at the sides, yellow. Stem leaves roundish-ovate, veined, opposite	11. Foxglove.12. Monkey-flower.
Corolla bell-shaped, lobes equal, rose coloured. Stem creeping. Leaves lanceolate-spathulate Corolla rotate, lobes irregular, pink.	13. Mudwort.
Leaves roundish-reniform, with a few broad lobes	14. Moneywort.

58.	LABIATA	E.	5	pp pp	d	Sem Lopp
φφ	Cor. White	1 1	Cal.	Nuls 🗑	1.	Lycopus.
φφ	Blue			Bets.	2.	SALVIA.
	4	9	ad	Fl.pink or purp.	3.	MENTHA.
Figure 1	A.A.	Uppe	rlip M	Smooth Pl.	4.	TEÚCRIUM.
9999	8 2	D	00. M	Rough Fl.	5.	AJUGA.
IIIIA		4	Cal.	Flor Prop.	6.	THÝMUS.
	2	7	N ASS	Fl. White	7.	MELISSA.
(See N912)		4	公务	Bets & Purp.	8.	ORIGANUM.
A PA	Calyx	Cal. 15 ribs		Fl. blue pink or white	9.	NEPETA.
	0	P		Stalked .	10.	SCUTELLÁRIA.
	1	P	2.0	Stam.	11.	PRUNELLA.
	13 ribs	L	1P4V	Fl. blue purp. or pink	12.	CALAMINTHA.
1 5		L	ip (L)	Fl. large, while or pink	13.	MELITTIS.
88		6	White	Nuts 🗑	14.	MARRÚBIUM.
18 89		L	ip w	Nuts 🕦	15.	BALLÓTA.
			Hairy	Fl. White pink or purp.	16.	LAMIUM.
	1	0	Solahrous	Yellow	16.	Do.
	会会			Stem L.	17.	LEONÚRUS.
		0	Langitudinal halres	W No scales	18.	STÁCHYS.
(See X97)			Thurses raires	(Scales	19.	GALEOPSIS.
F.A.MESSER. DI	167					

58. LABIATE FAMILY.

Corolla irregular, monopetalous, inferior. Stamens 4, didynamous, or (rarely) 2. Style 1, stigma bifid. Fruit 4-lobed, separating into 4 1-seeded nuts. Leaves opposite. Stem square.

site. Stem square.	
Stamens 2.	WATER STREET
Corolla 4-lobed, nearly regular, white.	
Calyx regular, 5-toothed. Nuts flat on the top	1. Gipsy-wort.
Corolla 2-lipped, lower lip 3-lobed.	
Calyx 2-lipped, upper lip 3-toothed, lower lip bifid.	0.00
Bracts cordate, acuminate	2. Sage.
Stamens 4 distinct (not in pairs), not under the upper	
lip of the corolla. (See No. 12.)	
Corolla 4-lobed, nearly regular. Calyx regular, 5-toothed. Flowers pink or purple	3. Mint.
Corolla apparently with lower lip only. Upper lip	0. 22.22.
very small.	
Upper lip distinctly bifid. Nuts smooth.	
Flowers more or less secund	4. Germander.
Upper lip very short, 2-lobed. Nuts rough.	
Flowers not secund	5. Bugle.
Corolla 2-lipped, the lower lip 3-lobed.	
Calyx 2-lipped, the upper lip3-toothed, the lower bifid.	
Flowers capitate, purple	6. Thyme.
Flowers in axillary secund whorls, white	7. Balm.
Calyx with 5 nearly equal teeth.	O Wanianana
Bracts many, imbricated, purple	8. Marjoram.
Stamens 4 in pairs, under the upper lip of the corolla,	
outer pair the shortest.	
Calyx with 5 nearly equal teeth. Calyx with 15 ribs. Flowers blue, pink, or white	Cat-Mint,
Stamens 4 in pairs, under the upper lip of corolla, outer	9. Ground-Ivy.
pair the longest. (See No. 7.)	
Calyx 2-lipped, both entire, a concave scale on the	The second second
upper lip. Flowers nearly sessile, opposite, in	
axillary pairs, secund. Nuts stalked	10. Skull-cap.
Calyx 2-lipped, upper lip slightly 3-toothed, lower	
lip bifid. Flowers in a dense terminal spike. Fila-	11 0.101
ments toothed below anther	11. Self-heal.
Calyx 2-lipped, upper lip 3-toothed, lower lip bifid,	
13 ribs. Lower lip of corolla 3-lobed. Flowers	12. Calamint, Basil.
blue, purple, or pink	Basil.
Calyx membranous, ample, 3-lobed, upper lip 2- to 3-	
toothed. Lower lip of corolla 3-lobed. Flowers	13. Bastard Balm.
large, white or pink	10. Dastaid Baim.
within the tube of the white corolla. Nuts flat at the top	14. White Hore- hound.
Calyx funnel-shaped, with 5 spreading, ovate, finely-	hound.
pointed, teeth. Lower lip of corolla 3-lobed, middle	
lobe obcordate. Nuts rounded at the top	15. Black Hore- hound.
Calyx with 5 nearly equal teeth.	(nound.
Nuts flat on the top.	THE RESERVE ASSESSMENT
Anthers hairy.	THE STATE OF THE S
Lower lip of corolla 2-lobed, laterally toothed.	
Flowers white, pink, or purple	16. Dead-nettle.
Anthers glabrous.	
Lower lip of corolla 3-lobed, upper lip long.	10 Wassel
Flowers yellow	16. Weasel-snout.
Lower lip of corolla 3-lobed, upper lip flat,	17. Motherwort.
hairy. Stem leaves 3-lobed	17. Motherwort.
Nuts rounded at the top.	
Anthers with longitudinal valves. Lower lip 3-lobed, no scales present	18. Woundwort.
Anthers with transverse valves.	-S. Wouldword.
Lower lip 3-lobed, with 2 scales	19. Hemp-nettle.





61. PRIMULACEÆ. 2 14.5 07 4.5.07 }						
9	T.	Pink Pink	Cap.	1. CENTUNCULUS.		
	1000	Mac Luac	Fl.	2. HOTTÓNIA.		
	图图	Mile White	FL. (3. CYCLAMEN.		
		Yell. purp. lilac	Fl. or F	4. PRÍMULA.		
5		White	Cap. Ly Bet	5. SAMOLUS.		
		Cor. none	Cal. pink	6. GLAUX.		
	Vio De	Yeu.	Сар.	7. LYSIMACHIA.		
		Red pink or blue	Cap.	8. ANAGALLIS.		
7	Up.I. 35.6	White	Fl. 992	9. TRIENTALIS.		

59. VERVAIN FAMILY.

Corolla irregular, monopetalous, inferior. Calyx-lobes 5. Corolla-lobes 5. Stamens didynamous (2 long and 2 short). Style 1, bifid, from the top of ovary. Capsule dividing into 4 1-seeded nuts.

Flowers in a slender spike. Corolla slightly irregular,

1. Vervain.

Leaves opposite, lobed or toothed

60. BUTTERWORT FAMILY.

Corolla trregular, monopetalous, inferior. Calyx-lobes 2 or 5. Stamens 2. Style short, thick; stigma 2-lipped, lips unequal. Capsule 1-celled, many-seeded; placenta central. Marsh or aquatle plants.

Leaves radical, oblong or ovate.

Calyx 2-lipped, upper lip 3-lobed, lower 2-lobed. Corolla ringent, spurred. Fl. solitary, blue or strawcoloured

Leaves divided into capillary segments interspersed with small bladders. Aquatic plants, floating.

Calyx 2-lipped, upper entire, lower notched. Corolla personate, spurred. Flowers in racemes, yellow ...

1. Butterwort.

2. Bladderwort.

61. PRIMROSE FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 4, 5, or 7. Stamens 4, 5, or 7, opposite to the corollalobes. Style 1; stigma capitate. Capsule 1-celled, many- (or few-) seeded; placenta free, central.

Leaves alternate, ovate. Corolla 4-lobed, pink. Capsule opening transversely

Stamens 5.

Stamens 4.

Leaves pectinate, submerged. Corolla-lobes salver-shaped, lilac. Flowers whorled Leaves radical, cordate-ovate, angular, dentate; rootstock tuberous.

Corolla-lobes closely reflexed over the tube, white. Flowers solitary

Leaves radical, ovate or oblong, often wrinkled. Corolla salver-shaped, tube long, lobes notched; yellow, pink, or lilac. Flowers solitary or in

Leaves alternate, obovate or roundish.

Corolla salver-shaped, with entire lobes and small scales interposed. Capsule half inferior, bract on pedicel

Leaves opposite, varying from lanceolate to ovate. Corolla none. Calyx bell-shaped, pink, corolla-like Corolla rotate, yellow. Capsule opening at the top vertically

Corolla rotate or funnel-shaped, red, pink, or blue. Capsule opening transversely

Stamens 7.

Upper leaves in an irregular whorl of 5 (or 6) obovate or lanceolate leaves. Corolla rotate, 7-lobed. Flowers 3 or 4 together

Bastard Pimpernel, Chaffweed.

2. Water-violet, Featherfoil.

3. Sow-bread.

4. Primrose.

Brook-weed.

6. Sea Milkwort, Black Saltwort.

7. Loosestrife.

8. Pimpernel.

9. Chickweed Winter-green.

62. PL	UMBAGINA	ACER. W	S O L.rad.
*	L. D to B	Fl. Yor Wpurp-blue	1. STATICE.
*	L. to	Fl. pint.	2. ARMÉRIA.



64. Amai	RANTHACEÆ.	(ð ç)	(£)	9. 40
Prth.	Fl. & green	L. []	1.	AMARANTHUS.

65. CHENOPODIACEÆ. A CO					
L.none	Plor2	Stem & Succut	1. SALICORNIA.		
L. Sect	Prth.	Q	2. SUÆDA.		
L. Secr	\$	*	3. SALSOLA.		
	9 th 5 th	Fr. W	4. ATRIPLEX.		
L. Flat	3 000	Fr. 💓	5. CHENOPÓDIUM.		
	¥Ψ	Fr. 🖁	6. BÉTA.		

F.A.MESSER. DELT

62. THRIFT FAMILY. (Corolla regular, monopetalous, inferior. Calyx tubular (plicate). Corolla-lobes 5. Stamens 5. Styles 5. Fruit 1-celled, 1-seeded. Leaves radical.

Styles 5, glabrous.

Leaves varying from lanceolate to ovate-spathulate.

Flowers in secund or dichotomous panicles, purpleblue

Styles 5, hairy at the base.

1. Sea Lavender.

Leaves varying from linear to linear-lanceolate.

Flowers in a head, with a sheath beneath, pink ...

2. Thrift, Sea-pink.

63. PLANTAIN FAMILY.

Corolla regular, monopetalous, inferior. Calyx-lobes 4 or 3. Corolla-lobes 4. Stamens 4. Style 1. Capsule 1- to 4-celled, cells 1-seeded; or 2-celled, cells 4- to 8-seeded. Leaves radical.

1. {Plantain, Rib-grass.

Flowers solitary, yellowish. Capsule 1-celled, 1-seeded

2. Shore-weed.

64. AMARANTH FAMILY.

Perianth regular, calyx-like, inferior. Monœcious. Perianth-lobes 3. Stamens 3. Stigmas 3. Capsule 1-celled, 1-seeded.

Perianth 3-lobed.

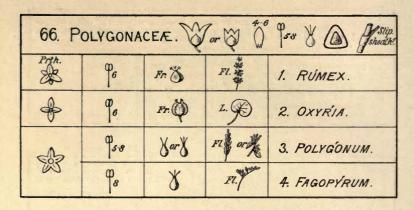
Flowers in dense spikes or clusters. Leaves ovate ..

1. Amaranth.

65. GOOSEFOOT FAMILY.

Perianth regular, calyx-like, inferior. Hermaphrodite or monecions. Perianth-loses 5, 2, or 3. Stamens 5, 1, or 2. Styles 2 or 3. Fruit 1-celled, 1-seeded, dry or fleshy.

Leaves none. Glasswort, Stamens 1 or 2. Stem jointed, succulent .. Marsh Samphire. Leaves linear, nearly cylindrical in cross section. Perianth 5-lobed, unaltered in fruit 2. Sea-blite. Leaves subulate, prickly, semi-cylindrical in cross section. Perianth in fruit encircled by a scarious wing. Flowers solitary, sessile, in the axil of 3 floral leaves or bracts 3. Saltwort. Leaves flat. Male: Perianth 5-lobed. Female: Perianth 2-lobed. 4. Orache. Perianth not fleshy in fruit Hermaphrodite: Perianth 5-lobed. Perianth not fleshy in fruit ... 5. Goosefoot. Perianth fleshy in fruit, usually in pairs 6. Beet.









70. ARIST	OLOCHIAC	ER.W	lors Poortz #
Yellor	Φ ₆	I. 9	1. ARISTOLOCHIA.
Dail green	φ ₁₂	z. %	2. AS'ARUM.

66. DOCK FAMILY.

Perianth regular, corolla-like or calyx-like, inferion Perianth-lohes 4 to 6. Stamens 5 to 8. Styles or stigmas 2 or 3. Fruit 1-celled, 1-seeded, usually triangular. Stipules sheathing the stem.

Perianth 6-lobed, 3 inner lobes larger than the others. Stamens 6. Styles 3, tufted. Fruit triangular. Flowers in whorls 1. Dock. Perianth 4-lobed, 2 inner lobes larger than the others. Stamens 6. Fruit compressed, winged. Stigmas 2, tufted. Leaves reniform 2. Mountain Sorrel. Perianth 5-lobed, lobes equal. 3. Persicaria, Bistort, Stamens 5 to 8. Styles 2 or 3. Flowers in racemes or clusters Stamens 8. Styles 3. Knot-grass. 4. Buck-wheat. Flowers in cymose panicles ...

67. SALLOW-THORN FAMILY.

Perianth regular, calyx-like, inferior. Diœ-cious. Perianth-lobes 2. Stamens 4. Style 1. Fruit a 1-seeded nut, enclosed in a fleshy perianth. Shrubs.

Male flowers: Perianth of 2 segments.

Female flowers: Perianth tubular, cloven at the summit. Berry orange-coloured. Leaves linear-lanceolate, silvery

1. Sallow-thorn. Sea Buckthorn.

68. DAPHNE FAMILY. {

Perianth regular, corolla-like or calyx-like, inferior. Perianth-lobes 4. Stamens 8, in 2 rows. Style short, stigma capitate. Fruit a 1-seeded berry. Shrubs.

Perianth tubular, lobes 4-spreading, purple or green. Berry red or blue-black.

Leaves lanceolate, narrowed below

1. Mezereon.

69. SANDALWOOD FAMILY, {

Perianth regular, corolla-like, superior. Perianthlobes 5. Stamens 5. Style 1. Fruit 1-celled, 1-seeded.

1. Bastard Toad-Perianth 5-lobed. Stamens 5, with a tuft of hairs. Bracts 3, the middle one longest. Leaves linear flax.

70. BIRTHWORT FAMILY, {

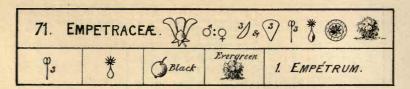
Perianth regular, corolla-like, superior. Perianth-lobes 1 or 3. Stamens 6 or 12. Style 1, stigma 6-rayed. Capsule 6-celled, cells many-seeded.

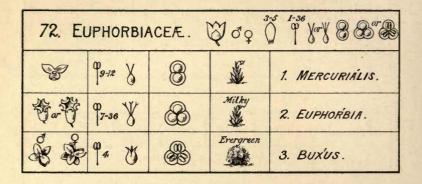
Perianth tubular, oblique, yellow. Stamens 6. Leaves cordate

1. Birthwort.

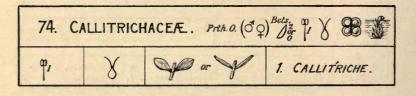
Perianth bell-shaped, 3-lobed, dull green. Stamens 12. Leaves reniform ..

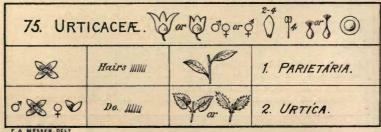
2. Asarabacca.











71. CROWBERRY FAMILY.

Perianth regular, like a corolla and calyx, inferior. Diœcious. Perianth-lobes like 3 sepals and 3 petals. Stamens 3. Stylé 1, stigma rayed. Fruit a 9-seeded berry. Shrubs.

Stamens 3. Stigma 9-rayed.

Berry globose, black. Low evergreen shrubs ..

1. Crowberry.

72. Spurge Family.

Perianth or involucre regular, calyx-like, inferior. Male or female. Perianth-lobes or involucre-lobes 3 to 5. Stamens 1 to 36. Styles 2 or 3. Capsule 2- or 3-celled, cells 1-seeded; or 3-celled, cells 2-seeded.

Perianth 3-lobed.

Stamens 9 to 12. Styles 2.

Perianth-like involucre 4- or 5-lobed.

Stamens 7 to 36. Styles 3, bifid.

Ovary 3-lobed, 3-celled, cells 1-seeded. Milky herbs Perianth of male: 3 sepals and 2 petals. Perianth of

female: 4 sepals and 3 petals. Stamens 4. Styles 3.

Ovary 3-celled, cells 2-seeded. Evergreen shrubs...

Mercury.
 Spurge.

3. Box.

73. HORNWORT FAMILY.

Perianth regular, calyx-like, inferior. Monœcious. Perianth-lobes 8 to 12. Stamens 12 to 20, sessile. Style 1. Fruit 1-celled, 1-seeded. Submerged herbs.

Perianth with 8-12 entire or notched lobes.

1. Hornwort.

74. WATER STARWORT FAMILY.

Perianth none. Monoccious. Bracts 2 or 0. Stamen 1. Styles 2. Ovary 4-lobed, 4-celled, cells 1-seeded, separating in fruit. Aquatic herbs.

Stamen 1. Styles 2.

Leaves opposite, ovate or linear

1. Water Starwort.

75. NETTLE FAMILY.

Petianth regular, corolla-like or calyx-like, inferior. Male, female, or hermaphrodite. Perianth-lobes 2 or 4. Stamens 4. Stigma tufted, sessile, or on a style. Fruit 1-celled, 1-seeded.

..

Perianth 4-lobed.

Hairs simple. Leaves alternate, entire

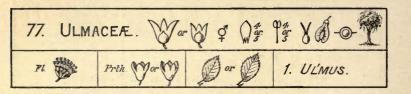
1. Pellitory.

Perianth of male 4-lobed, of female 2-lobed.

Hairs glandular stinging. Leaves opposite, toothed

2. Nettle.





78. AMENTACEÆ. OF PORMON PO YEON OF THE							
	(30)	2	φ ₄ χ	Prih.		1. ALNUS.	
	(ð°ç)	2 0 or	Ø-12 X	Do. 0	國軍	2. BETULA.	
din 8		A	Pz *	Prih. Scale 0.	Seeds & L. Far:	3. SÁLIX.	
Ŷ ^t	đ:q	9	940 8	Prth. Scale O. ()		4. MYRÍCA.	
		1	P830 X	Prih. Scale		5. Pořulus.	
		1	ps y	0		6. CORYLUS.	
		THE STATE OF THE S	P 5-14 X		9	7. CARPÍNUS.	
Sonly in S	only (OQ)	\$ -15 X	0	1	8. FAGUS.		
		of state	P 5-10 8	9		9. QUERCUS.	
		Deservior.	φ 8-20 ¥	0		10. CASTÁNEA.	

Male: Perianth regular, calyx-like. Female: Ovoid catkins. Dioccious. Perianth-lobes 5. Stamens 5. Styles 2. Leaves stipulate. (Twining plants.) 76. HOP FAMILY. {

Male: Perianth 5-lobed, spreading. Female: Catkin ovoid, seed wrapped in scale-like perianth.

Leaves heart-shaped or 3- or 5-lobed, rough, stipulate 1. Hop.

77. ELM FAMILY. { Perianth regular, corolla-like or calyx-like, inferior. Hermaphrodite. Perianth-lobes 4 or 5. Stamens 4 or 5. Styles 2. Fruit winged, 1-seeded. Trees.

Flowers clustered. Perianth bell-shaped, 4- or 5-lobed. Leaves unequal at the base, doubly serrate, with deciduous stipules

1. Elm.

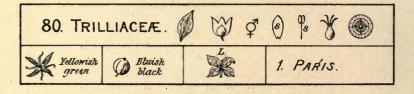
78. CATKIN FAMILY, {

Male flowers in catkins. Female flowers in catkins, or clustered, or solitary. Stamens 1 to 30. Styles 2 to 6. Fruit 1-celled, 1- or several-seeded. Trees or shrubs.

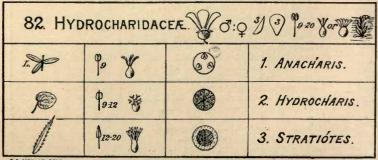
Fruit 1-celled, 1- or several	-seeded. Trees or snrubs.
Males in catkins, and females in catkins.	
Female catkins ascending, ovate. Stamens 4. Styles 2.	
Perianth 4-lobed. Leaves roundish blunt	1. Alder.
Female catkins pendulous or ascending, cylindrical.	
Stamens 8 to 12. Styles 2.	
Perianth none. Leaves broadly ovate or orbicular,	
toothed	2. Birch.
Flowers diœcious.	
Catkins erect.	
Stamens 2 (or rarely 1 or 3 to 5). Styles 2, bifid. Perianth none. Scales entire and hairy. Seeds	
hairy. Leaves various, usually narrow	3. Willow.
Stamens 4 to 8. Stigmas 2.	o. winow.
Perianth none. Scales entire, glabrous. Leaves	100
lanceolate, toothed at top	4. Sweet-gale, Bog-myrtle.
Catkins pendulous.	(Bog-myrtie.
Stamens 8 to 30. Styles 2, deeply bifid (rarely	
3- to 4-lobed).	
Perianth oblique. Scales jagged. Leaves ovate,	F Devile
lobed, or broadly triangular Males only in catkins.	5. Poplar.
Flowers monœcious.	
Catkins cylindrical. Stamens 8. Styles 2.	
Nuts in a jagged involucre.	
Leaves obovate-cordate	6. Hazel.
Catkins loose. Stamens 5 to 14. Styles 2.	
Nuts small, in a 3-lobed scale.	
Leaves ovate-acute, doubly toothed	7. Hornbeam.
Catkins globular. Stamens 8 to 15. Styles 3.	
Nuts enclosed in a prickly involucre.	8. Beech.
Leaves ovate, obscurely toothed Catkins slender, lax. Stamens 5 to 10. Style 3-lobed.	S. Beech.
Nuts (acorns) in a cup-shaped involucre.	
Leaves ovate-oblong, irregularly sinuate	9. Oak.
Catkins long. Stamens 8 to 20. Stigmas 6.	
Nuts enclosed in a prickly involucre.	
Leaves oblong-lanceolate, toothed	10. Chestnut.

79. CONIFERE. O Q Q or Q O Q Or Q Or Q Or Q Or Q Or Q						
L. V	Scale-O	Pr. Seeds	1. PÍNUS.			
*	Scale		2. JUNIFERUS.			
華	Anthers-	00	3. Taxus.			

PHÆNOGAMEÆ. (CONT?) CLASSII. ENDOGENÆ.







F.A.MESSER. DEL

79. PINE FAMILY.

Male flowers in cones. Female flowers in cones or solitary, and berry-like in fruit. Anther-cells 2 to 6; or stamens many, clustered. Seeds winged, or 1 to 3 enclosed in a succulent

involucre. Leaves subulate or	linear. Trees or shrubs.
Leaves in pairs, subulate. Anther-cells 2, adnate to the scales.	
Fruit a cone. Seeds winged, in pairs	1. Pine, Fir.
Leaves in whorls of 3, linear subulate, mucronate.	
Anther-cells 4 to 7, inserted on the lower edge of scales.	
Fruit like a 2- or 3-seeded berry	2. Juniper.
Leaves in 2 rows, crowded, linear acute.	
Stamens 8 to 10, in a cluster at the top of catkin;	
scales below.	9 V
Fruit like a single-seeded berry	J. Yew.

FLOWERING PLANTS. (CONT.)

CLASS II. ENDOGENS.

80. HERB-PARIS FAMILY.

Leaves net-veined. Perianth regular, calyx-like, inferior. Hermaphrodite. Perianth-lobes 8. Stamens 8. Styles 4. Fruit a 4-celled, manyseeded berry.

Perianth 8-lobed, 4 inner narrower than the others, yellowish-green.

Berry globose, bluish-black. Leaves usually 4 in a whorl 1. Herb-Paris.

Leaves net-veined. Perianth regular, corolla-like or calyx-like, superior. Dioccious. Perianth-lobes 6. Stamens 6. Style 1; stigmas 3. Fruit an imperfectly 3-celled berry, cells 2-seeded. 81. YAM FAMILY, {

Perianth 6-lobed, yellowish-green. Berry ovoid, scarlet. Leaves cordate, shining. Flowers in axillary racemes 1. Black Bryony.

Corolla regular, polypetalous, superior. Dicecious. Sepals 3. Petals 3. Stamens 9 to 20. Styles 3, feathery; or 6, bifid. Floating or submerged plants. 82. FROG-BIT FAMILY. {

Leaves oval-oblong, 3 in a whorl, submerged. Stamens 9. Styles 3, feathery. Capsule 1-celled, few-seeded; placentas 3, parietal 1. Water-Thyme. Leaves orbicular, floating. Stamens 9 to 12. Styles 6, bifid.

Capsule 6-celled, cells several-seeded, seeds on the septa and immersed in mucus .. 2. Frog-bit. Leaves sword-shaped, prickly-serrate. Stamens 12 to 20. Styles 6, bifid. Berry 6-celled, cells several-seeded, seeds on the septa and immersed in mucus ... 3. Water-soldier.

83. ORCHIDACEÆ. (6) Jary (5)					
L.none (sheaths)	TO STATE OF THE PARTY OF THE PA	Lip abore	Fl.pale yell.	Root	1. EPIPOGUM.
	Sep.	Lip	Fl. yell-green	*	2. CORALLORHÍZA.
	Sep.	Lip 💹	Fl. brown		3. NEOTTIA.
Fl. spurred	Spur	Lip M	Fl. pink or purp.	de	4. NEOTINEA.
	A Boar	Lips var.	, Fl.purp.rose pinkor white	分 恭	5. ORCHIS.
	Spar	Lip 🕠	Fl.rose or parp.	and the same	6. GYMNADENIA.
	MA	1) Moran	Fl.white or green	本品色	7. HABENÁRIA.
Lowerlip entire	Orary	Lip sacc.	Fl. Pink Straight	AT.	8. GOODYERA.
		Lip riat	FL White tristed	為為	9. SPIRANTHES.
	A P	Lip instated	p2. Fl. purp. & yell.	700	10. CYPRIPÉDIUM.
		Lip abore	Fl. green	W.	11. MALAXIS.
		Lip yeu. (1)	L.2 on stem		12. LÍPARIS.
Lower lip lobed	\$ 500.NW 4.5AT	Green Green	L.2 (or3) on stem	od	13. HERMINIUM.
		Green yell.	Pl.	do	14. ACERAS.
		Lips	Fl. white or purp.	30%	15. CEPHALANTHÉRA
	P	TO TO TO	Lipsbrown, spote with yell or blue	do	16. O'PHRYS.
	4	W Wyell:	L.2 on stem	ANA.	17. LISTERA.
		For &	Fl. green purp or white		18. EPIPACTIS.

83. ORCHIS FAMILY. { Perianth irregular, corolla-like, superior. Perianth-lobes 6. Stamens 1 or 2, on the style. Capsule 1-celled, with 3 parietal placentas; seeds very many, minute.

Leaves none (sheaths).	
Flowers spurred.	I Desired to the second second
Lip with the middle lobe above. Flowers few, pale yellow. Rootstock many fleshy branches	1. Epipogum.
Sepals lanceolate, acute.	
Lip with the middle lobe below. Flowers yellow-green. Rootstock many thick fleshy branches	2. Coralroot.
Sepals broadly ovate, slightly acute.	
Lip oblong, with 2 spreading lobes. Flowers brown. Root- stock a dense mass of thick fleshy fibres	3. Bird's-nest.
Flowers spurred.	
Spur very minute.	
Lip 3-lobed, middle lobe broad; lateral lobe linear, acute. Flowers plnk or purple. Rootstock 2 tubers with fibres above	4. Neotinea.
Spur from about # the length to about the length of the ovary.	
Lips variously 3-lobed, rarely 1-lobed, lobes crenate or middle lobe notched. Flowers rose, purple, pink, or white. Root-	
stock 2 entire or palmate tubers with fibres above	5. Orchis.
Spur longer than the ovary.	
Lip 3-lobed, lobes entire, obovate. Flowers rose or purple. Rootstock 2 paimate tubers with fibres above Spur very short, or longer than the ovary.	6. Fragrant Orchis.
	A Committee of the Comm
Lips linear, entire, or 2- or 3-lobed. Flowers white or green. Rootstock 2 taper or palmate tubers with fibres above, or variously thickened fibres	7. Frog Orchis.
Lower lip entire (not spurred).	V. 2108 OTCHIS.
Ovary sessile.	
Lip saccate.	
Flowers pink on a straight spike. Rootstock creeping, with	
a few fibres	8. Goodyera.
Lip flat, channelled, fringed.	
Flowers white, on a twisted spike. Rootstock 2 (or 3)	O Todala turner
oblong tubers or cylindrical fibres	9. Lady's-tresses.
Lip inflated (above 1 inch long).	
Stamens 2. Flowers purple and yellow.	
Rootstock fibrous	10. Lady's-slipper.
Lip above.	
Flowers green. Rootstock bulbous; bulb above ground	11. Bog Orchis.
Lip yellow, below or above.	11. Dog Orenis.
Leaves 2 on stem.	
Rootstock bulbous; bulb at base	12. Fen Orchis.
Lower lip lobed.	
Ovary sessile, twisted. (See Nos. 4, 5, & 7.)	
Corolla nearly regular, green; petals 3-toothed. Leaves 2 (or 3) on stem. Rootstock one tuber with fibres	
above, and another tuber at the end of a fibre	13. Musk Orchis.
Sepals converging, green. Lip 4-lobed, yellow.	Citis.
Flowers in a leafless spike. Rootstock 2 tubers with fibres	14 75 0 11
Above	14. Man Orchis.
Lip contracted in the middle, or lobed at the sides, Flowers white or purple. (Petals and sepals converging.) Rootstock fibrous	15 Conholomthous
Ovary sessile, straight.	15. Cephalanthera.
Lips variously lobed, velvety.	
Lips brown, spotted with yellow or blue. Rootstock 2 tubers with fibres above	16. Insect Orchis.
Ovary stalked, straight (stalk twisted).	
Lips 2- to 4-lobed, yellow-green,	
Leaves 2 on stem.	17 Tomore blad.
Rootstock fibrous	17. Tway-blade.
Flowers green, purple, or white.	
Rootstock creeping, fibres fleshy	18. Helleborine.
	DOMESTIC STATE

84. IRIDACEÆ. S 6 0 1 1 1 1 1				
	Stigmas	FL Fred	1. GLADIOLUS.	
	A.	Fl. Se yell.or purp.	2. ÍRIS.	
day	Wor	A	3. CRÓCUS.	
400	章	L 3ec.	4. TRICHONÉMA.	
0	P	Stam. Scape	5. SISYRIŃCHIUM.	

85. AMARYLLIDACEÆ.				
For 19	ţ	Fl. white or yell.	1. NARCISSUS.	
	4	FI Trhite	2. GALANTHUS.	
9		Fl. So white	3. LEUCÓJUM.	

86. ALISMACEÆ. Wor Wor 3/8 3 or 6 06,9 5 3.6. or many				
	(O) Many	Pr.	1:4	1. SAGITTÁRIA.
3 8.3) Fale purp Green	\$ ° 6	a por po	1 Por B	2. ALIŚMA.
race par ja Green	Υ	\$ 6-8	9	3. ACTINOCARPUS.
6) Rase	0 PI.	M. 9 e	L. Sec.	4. Bútomus.
(6) Green	Pe Pick	1 33 1 33	L. Sec.	5. Scheuchzéria.
FA.MESSER. PELT	96 M	Mor O - 6	I. Sec.	6. TRIGLÓCHIN.

84. IRIS FAMILY. { Perianth regular, corolla-like, superior. Perianth-lobes 6. Stamens 3. Anthers facing outwards. Style 1, stigmas 3 dilated. Capsule 3-celled, cells many-seeded. Leaves linear.

Perianth irregular, sub-2-labiate, tube curved. Stigmas 3, widening upwards, fringed. Flowers in 1-sided spikes, red Perianth segments, 3 reflexed and 3 erect. Stigmas 3, large, petal-like, notched. Flowers 2, 3, or several, yellow or purple	1. Gladiolus. 2. Flag, Fleur de Lis.
Perianth tube longer than the segments.	Fleur de Lis.
Stigmas 3, widening upwards, jagged or fringed.	
Anthers entire of hearty so at the apea	3. Crocus.
Perianth tube very short. Stigmas 3, bifid, lobes slender.	
Leaves very narrow, channelled	4. Trichonema.
Perianth tube very short, segments spreading.	THE RESERVE TO THE SAME AND ADDRESS OF
Stigmas 3, filiform, undivided, rolled inwards. Stamens united in a tube. Scape 2-edged	5. Blue-eyed-grass.

85. DAFFODIL FAMILY.

Perianth regular, corolla-like, superior. Perianthlobes 6. Stameus 6. Anthers facing inwards. Style 1, stigma simple or 3-lobed. Capsule 3-celled, cells many-seeded. Leaves linear.

Perianth with a short or long crown within. Stigma 3-lobed. Flowers solitary or 2 together, white or yellow Perianth of 3 spreading segments, and 3 shorter, erect,	1. {Narcissus. Daffodil.
notched. Anthers pointed at the apex. Flowers solitary, white	
Perianth of 6 equal segments. Anthers notched at the apex.	3. Snowflake.

86. WATER-PLANTAIN FAMILY.

Corolla polypetalous, or perianth corollalike or calyx-like; regular, inferior. Sepals 3 and petals 3, or perianth-lobes 6. Stamens 6, 9, or many. Ovaries 3, 6, or many.

Petals 3 pale purple, and sepals 3 green. Monœcious. Stamens many.	
Fruit of many 1-seeded carpels, arranged in a head. Leaves sagittate Hermaphrodite. Stamens 6.	1. Arrow-head.
Fruit of many 1-seeded carpels, in a ring or head.	2. Water-Plantain
Fruit of 6 to 8 2-seeded carpels, connate at base, Leaves oblong-ovate, obtuse Perianth of 6 equal segments, rose-coloured.	3. Star-fruit.
Stamens 9. Flowers in umbels. Fruit of 6 many-seeded carpels. Leaves linear, trigonous in cross section	4. Flowering Rush.
Ferianth of 6 equal segments, green. Stamens 6. Flowers about 5 in a raceme. Fruit of 3 1- or 2-seeded carpels. Leaves llnear, semi-cylindrical in cross section	
Stamens 6. Flowers in a spike or raceme. Fruit of 3 or 6 1-seeded carpels. Leaves linear, semi-cylindrical in cross section	6. Arrow-grass.

87. ASPARAGACER OF PO SOLUTION OF PORT				
n.	Prth.		I.	1. Ruscus.
FL.	×	φ4	L.2 9	2. SMILACÍNA.
FL.	W	Purenhite	L.2	3. CONVALLÁRIA.
	4	Stem	L.	4. ASPARAGUS.
PL SASS	as .	Do. \$	L. Sto	5. POLYGONÁTUM.

88. LILIACEÆ. W @ Po P9 Jor &			
	A white	L. Sec.	1. LLOYDIA.
M	Yell.	L.	2. TULÍPA.
	Purp.	Prinseg. pore	3. FRITILLÁRIA.
	K Yeu.	Fl. bets green	4. GÁGEA.
For F	Purp pink or white	Fl. or scarious	5. ALLIUM.
	Ø Blue	PI.	6. Muścari.
200	Blue or parp.	FLA	7. ENDYMION.
* or	Purp.	rl.	8. LILIUM.
		Blue or purp.	9. SCILLA.
	TOS	While inside, green outside.	10. ORNITHOGALUM.
47.57.50		White inside. O purp outside.	11. SIMÉTHIS.

87. ASPARAGUS FAMILY.

Perlanth regular, corolla-like, inferior. Perlanthlobes 6 or 4. Stamens 6 or 4. Anthers facing inwards. Style 1, stigmas 1 or 3. Fruit a berry, with 1 or 2 1-seeded cells, or 3 2-seeded cells. Rhizome creeping.

Knizome creeping.	
Flowers on the leaves (really on the flattened shoots). Perianth of 6 spreading segments. Shrubby, branched. Leaves (so called) ovate, stiff, prickly	1. Butcher's
Perianth of 4 spreading segments.	2. Smilacina.
Flowers in loose racemes, drooping.	3. Lily of the Valley.
Perianth tubular, bell-shaped, of 6 segments.	
Perianth tubular, 6-toothed. Stem simple. Leaves varying from lanceolate to	4. Asparagus.
ovate	5. Solomon's Seal.

88. LILY FAMILY, {

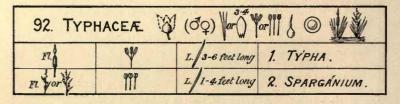
Perianth regular, corolla-like, inferior. Perianth-lobes 6. Stamens 6. Authers facing inwards. Style 1, stigmas 1 or 3. Fruit a 3-celled capsule, cells many-seeded. Rootstock bulbons.

stock bulbous.	e, cens many-seeded. Root-
Flowers solitary.	
Perianth spreading, white (with reddish lines). Leaves filiform, semi-cylindrical	1. Spiderwort.
Leaves linear-lanceolate	2. Tulip.
Segments with a pore at the base Flowers in umbels or heads.	3. Fritillary.
Perianth spreading, yellow. Flowers 3 or 4 together, in umbels.	4. Yellow Star of Bethlehem.
Perianth rather spreading, purple, pink, or white. Flowers many, in umbels or heads.	
Bracts scarious	5. Garlic.
Perianth globose, toothed, blue. Flowers in a dense raceme	6. Grape Hyacinth.
Perianth tubular, bell-shaped, blue or purple. Flowers in a drooping raceme	7.{Wild Hyacinth, Blue-bell.
Flowers few, drooping	8. Lily.
Blue or purple	9. Squill. 10. Star of Beth- lehem.
Flowers in panicles. Perianth with spreading segments.	
White inside, purple outside. Filaments woolly	11. Simethis.

89. MELANTHACEÆ. W @ 96 Yard @ ar				
Φε	b	X Yell.	Root	1. NARTHÉCIUM.
φ	A	Wellow!	Mark .	2. TOFIELDIA.
6	Y	Purp.		3. Colchicum.









94. LEMNACEÆ. Spathe oro (30) Prih 07					
	Stam.	Spathe 0.	1. WOLFFIA.		
	Pior2	Do.	2. LEMNA.		

89. MEADOW-SAFFRON FAMILY.

Perianth regular, corolla-like, inferior; lobes 6. Stamens 6. Styles 3 or 1. Fruit a 3-celled capsule; or separating into 3 1-celled follicles; cells many-seeded.

Stamens 6, filaments woolly.

Perianth spreading, yellow. Rootstock creeping Stamens 6, filaments glabrous.
Styles 3, short.

1. Bog-Asphodel. 2. Scottish Asphodel.

Styles 3, very long.

Perianth small, yellowish-white. Rootstock creeping .. Perianth with a very long tube, purple. Corm coated ...

3. Meadow-saffron

90. RUSH FAMILY, {

Perianth regular, calyx-like, inferior; lobes 6. Stamens 6 or 3. Style 1, stigmas 3. Capsule 3-celled, cells many-seeded; or 1-celled, with dissepimenta, 3-seeded.

Leaves glabrous.

Leaves in section circular or semicircular. Capsule 3-celled, cells many-seeded

1. Rush.

Leaves hairy (rarely glabrous).

Leaves in section flat or V-shaped.

Capsule 1-celled, with dissepiments, 3-seeded

2. Wood-rush.

91. PIPEWORT FAMILY.

Perianth regular, calyx-like, inferior. Monoeclous. Perianth-lobes 4. Stamens 4. Style short, stigmas 2, long. Capsule 2-lobed, 2-celled, cells 1-seeded. Marsh plants, with radical leaves.

Flowers in heads, leaden colour.

Male: Perianth 4-lobed, 2 inner lobes united nearly to the top. Female: Perianth 4-lobed, deeply divided. Leaves subulate 1. Pipewort.

92. BULRUSH FAMILY.

Perianth none (reduced to hairs); or regular, calyx-like, inferior. Monœcious. Perianth of 3 hairs, or 3 or 4 lobes. Stamens 3, united or free. Style 1. Fruit 1-celled, 1-seeded. Aquatic plants.

Flowers in cylindrical spikes.

Stamens 3, united.

Leaves linear, 3 to 6 feet long Flowers in globular heads; inflorescence simple or branched.

Bulrush. 1. Reed-mace, Cat's-tail.

Stamens 3, free. Leaves linear, 1 to 4 feet long

2. Bur-reed.

93. ARUM FAMILY.

Perianth none; or regular, calyx-like, inferior. Monoeclous or hermaphrodite. Perianth-lobes 0 or 6. Stamens many, crowded, sessile; or 6 with free filaments. Stigma sessile. Fruit a berry; 1-celled, 2- to 4-seeded; or 3-celled, cells many-seeded.

Spathe ventricose, contracted in the middle

Spadix club-shaped; female flowers at base; male flowers a little above them. Perianth none. Leaves hastate. Berry 1-celled, 2- to 4-seeded.

Cuckoo-pint, Lords and Ladies.

Spathe long, leaf-like. Spadix dense, lateral

Perlanth 6-lobed. Leaves long, linear. Berry 2- or 3-celled, cells many-seeded ...

2. Sweet Flag.

94. DUCKWEED FAMILY.

Flowers with or without spathes. Monœcious. Perianth none. Stamens 1 or 2, with or without filaments. Style 1. Floating or submerged plants, with leaf-like fronds.

Fronds very small, sub-globose, rootless. Stamen 1; anther 1-celled, sessile. Spathe none Fronds obovate or elliptic-lanceolate, with roots beneath. Stamens 1 or 2, anthers 2-celled, with filaments. Spathe urnshaped ..

1. Wolffia.

2. Duckweed.

95. POTAMOGETONACE A. O Cor Cop 12 0 8 0 0 0					
(♂♀)	φ	Prth. Q Do. O O.	W/	1. ZANNICHELLIA.	
Z.	Φ2	Prth.o.	We will be a second	2. RUPPIA.	
¥	Φ4	Do. (6)	***	3. POTAMOGÉTON.	

96. NAIADACEA. Spathe L. (OQ) or O:Q Prih. O. I to OL				
) _I	for	8	I.	1. NÁIAS.
\$ 1	χ	2- 14- Q	L.	2. Zostéra.

97. CYPERACEÆ. A COPOR POR DE Stem					
(đ q)	Ž.	3	X ar X	1. CAREX.	
(6 d)	b	Up.fl.of	Lon: 1'l. Q	2. KOBRÉSIA.	
A	₽ F7.2-4	Stem 🚳	*	3. SCHOENUS.	
#	g Fl.	Stem A	Tor W	4. CYPÉRUS.	
	6	Fr:	or	5. ERIOPHORUM.	
		V		6. ELEÓCHARIS.	
		8	-	7. RHYNCHOŚPORA.	
	D	Ÿ	*	8. BLYSMUS.	
		6	or Ve	9. Scikpus.	
	1	Y	Por &	10. Isólepis.	
			***************************************	11. CLÁDIUM.	

95. PONDWEED FAMILY.

Perianth regular, calyx-like, inferior; or none. Hermaphrodite or monœcious. Stamens 4, 2, or 1; with or without filaments. Ovaries 4, distinct, stigmas sessile. Fruit 4 drupes or 4 nuts, each 1-seeded. Aquatic plants.

1-seeded. Aquatic pl	ants.
Statuens 4, anthers sessite. Terranth 4-robed.	

97. SEDGE FAMILY.

Flowers arranged in spikelets of imbricated bracts (glumea). Each flower in the axil of one glume; monœclous or hermaphrodite. Stamens 3 or 2; anthers erect, entire at the apex. Style simple, bifid or trifid. Embryo enclosed within albumen. Stem solid, triangular or round. Sheath of leaf entire.

97. SEUGE FAMILY, apex. Style simple, bifid of within albumen. Stem solid of leaf entire.	or trifid. Embryo enclosed, triangular or round. Sheath
Flowers monecious.	
Ovary enclosed in a vase-shaped tunic.	
Stamens 3. Style 1, stigmas 2 or 3	1. Sedge.
Ovary partially enclosed in a scale.	1. beuge.
Upper flowers male. Lower flowers female	2. Kobresia.
Glumes in each spikelet arranged in 2 opposite rows.	z. Hobresia.
Spikelets 2- to 4-flowered.	
Stem round. Spikelets in terminal heads	3. Bog-rush.
Spikelets many-flowered.	o. Dog Tush.
Stem triangular. Spikelets in compound or simple	
umbels	4. Galingale.
Glumes in each spikelet imbricated all round the axis.	z. Guinguio.
Bristles ultimately far exceeding the glumes.	
Fruit trigonous.	
Spikelets solitary or umbellate	5. Cotton-grass.
Bristles not equalling the glumes.	o. cotton grand.
Base of style dilated.	
Spikelets terminal, solitary	6. Spike-rush.
Spikelets in clusters	7. Beak-rush.
Base of style filiform.	T. Bould rubin
Spikelets in a terminal spike, arranged in 2	
opposite rows	8. Blysmus.
Spikelets in simple or compound clusters, umbels,	
or panicles	9. Club-rush.
Bristles none.	
Base of style filiform.	
Spikelets 1 or 2 together, or in clustered globular	
heads	10. Do.
Base of style conical.	
Spikelets in compound panicles	11. Twig-rush.

98. GRAMINEÆ. & # for (50) 1/2 4 0 8 1/8					
15	(W) WITH	I PERFE	CT FLOWER	R (OFTEN ACCOM	PANIED BY TOR 2 RUDIMENTARY FLOWERS
1	Gl. Lowpal.	Rachis	GI.	Spike	1. LEPTÚRUS.
			GI. for	-	2. HORDEUM.
	GL.	Lor.pal.	GI Long	*	3. LAGURUS.
			GL Low pall	*	4. POLYPÓGON.
		Lon. pal.	cr. A D	or	5. PHLÉUM.
			CI.	O ar	5. Do.
0		Low.pal.	GI. ()		6. PHALARIS.
or					7. SETÁRIA.
	GI.		Lor: pal.		8. Psamma.
	ac.D		Low. pal.		8. Do.
		Low pal.	GI () Pail (0 or	9. ALOPECÚRUS.
			GL 2		10. Янтнохантним.
F.A. MEBBER. DE			GI. V		11. GASTRIÓIUM.
I.A.FEDER.UL			(Continu	ed.)	

98. GRASS FAMILY.

Flowers arranged in spikelets composed of bracts (glumes and paleæ), imbricated in 2 opposite rows. Each flower enclosed in 2 bracts. Hermaphrodite or monoscious. Stamens usually 3 (rarely 1 or 6); anthers versatile, notched at both ends. Styles 2 (rarely 1 or 3), feathery. Embryo on the outside of albumen. Stem hollow and knotted. Sheath of leaf split.

1 SPIKELETS WITH 1 PERFECT FLOWER (OFTEN ACCOMPANIED BY 1 OR 2 RUDIMENTARY FLOWERS).

Spikelets on a slender spike (not secund). Glumes* and lower (or outer) paleæ* both awnless. Spikelets quite imbedded in alternate sides of the rachis. Glumes equal. Spike cylindrical Spikelets in an ovoid or cylindrical dense spike or spikelike panicle (not secund). Glumes awned.	1. Hard-grass.
Lower (or outer) paleæ awned. Glume awl-shaped or lanceolate. Spike subcylindrical	2. Barley. 3. Hare's-tail-grass.
Glume notched, awned beneath the tip. Lower palea notched, awned beneath the tip. Panicle spike-like, cylindrical or branched Lower (or outer) paleæ awnless. Glumes truncate with a short awn or seta.	4. Beard-grass.
Panicle spike-like, ovoid or cylindrical Glumes awnless. Lower (or outer) paleæ awnless. Glumes lanceolate.	5. Cat's-tail-grass.
Panicle spike-like, ovoid or cylindrical Glumes boat-shaped, strongly keeled. Panicle spike-like, ovoid	5. Do.6. Canary-grass.
involucre of bristles. Panicle spike-like, cylindrical Lower palea with a very short awn, and hairs at the base. Panicle spike-like, both ends tapered	7. Brittle-grass. 8. Marram.
Lower (or outer) paleæ awned. Lower palea with a very short awn, and hairs at the base. Panicle spike-like, both ends tapered	8. Do.
Glumes equal, or nearly so; more or less connate below. Palea 1, awned at the back. Styles long, connate below. Panicle spike-like, oblong or cylindrical Glumes very unequal. Stamens 2.	9. Fox-tail-grass.
Panicle spike-like, tapering	10. Vernal-grass.11. Nit-grass.
* The parts here called "glumes" are by some authors termed "barren glumes"; the "lower (or outer) paleæ," "flowering glumes"; and the "upper (or inner) paleæ," "paleæ."	

114		British V	Vild Flow	iers	
***************************************	Pal.	Gl. none		12. NARDUS.	
a	Pal.	сн. У	Y	13. Chamagrośtis.	
W	APARTA.	GI.	A	14. Сүńором.	
Y	Section 1	GI: M.Pal.	Y	15. Digitária.	
	2-8 Spikes	GI. V	Y	16. Spartina.	
10	V	Gl: Out.	Y	17. Есніноснісол.	
		Gl. none	Pal.	18. LEERSIA.	
Longs		GI.	Gl. purp.	19. MELICA.	
	Lon: pal.	<i>a.</i> V	Gl. green	20. MILIUM.	
PRESERVE AND THE PROPERTY OF T			Pal. Y	21. Digráphis.	
河客		GI.	Pal. Y	22. Agrostis.	
		Low.pal.	Up: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	22. Do.	
	Low. pal.	Do.	Up. Low.	23. Apéra.	
		Do.	Up. \ J-Low Gl.	24. Calamagrośtis.	
F.A.MESSER, DELY (Continued.)					

Spikelets secund (on one side of rachis). Spike simple.	
Paleæ 2, lower tapering into a subulate point.	
Glume none. Style simple; stigma filiform, hairy	12. Mat-grass.
Paleæ 2 (or 1), scarious, very hairy.	NAME OF TAXABLE PARTY.
Glumes 2, blunt. Styles 2, long; stigmas slender,	
hairy	13. Chamagrostis.
Chilede seems d. Shihar Maitata	
Spikelets secund. Spikes digitate.	
Spikelets in two rows, on one side of a convex rachis.	14.{Dog's-tooth-
Glumes nearly equal, patent. Styles separate	14. grass.
Spikelets in unequally pedicelled pairs, on one side of	
the flattened rachis.	
Glumes very unequal, upper strongly veined, palea of sterile flower like upper glume. Styles	A STATE OF THE REAL PROPERTY.
terminal	15. Finger-grass.
DELILIAMA	To. Zingor-grass.
Spikelets secund. Spikes 2- to many-branched.	
Spikes 2 to 8, erect.	DE VERTER SE
Glumes unequal, pointed. Styles united below	16. Cord-grass.
Spikes compound, secund in the whole, and in each part.	
Glumes very unequal, upper pointed or rigidly	7-11-1
awned; lower or outer palea of sterile flower	
like upper glume. Styles separate	17. Panick-grass.
Spikelets in a lax panicle.	
Lower (or outer) paleæ awnless.	STORY TO STORY
Glumes none.	
Paleæ 2, like parchment, compressed, keeled	18. Cut-grass.
Glumes as long as the flowers.	
Glumes nearly equal, purple	19. Melick.
Glumes nearly equal, green	20. Millet-grass.
Glumes longer than the flowers.	
Paleæ nearly equal, hairs at base. Styles long	21. Digraphis.
Paleæ unequal, hairs at base. Styles short	22. Bent-grass.
Lower (or outer) paleæ, awned.	A STIMULION BUILDING
Lower palea with an awn once or twice its length.	
Upper glume smaller than the lower glume	22. Do.
Lower palea with an awn 3 to 4 times its length.	III. THE WASTE
Upper glume larger than the lower glume	23. Wind-grass.
Lower palea with an awn about 1 its length, and	
hairs at the base.	
Upper glume nearly equal to the lower glume	24. Small-reed.
the state of the s	

2 NOLY WITH 2 TO 20 FLOWERS (SOMETIMES ONLY I PERFECT AND I OR 2 MALE FLOWERS)					
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	GI.	Bet.	25. SESLÉRIA.	
or	V	GI.	Bet. 0	26 Koeléria.	
AN SHEET	8	GI. V	Bet.	27. CYNOSÚRUS.	
		Pl.	Bct.	27. Do.	
		G1.1).	Rachis	28. LÓLIUM.	
		cz N A	Low pal reins parallel	40. SCLEROCHLOA.	
***************************************		GI.	Low pal. reins converge	39. FESTÚCA.	
		GI. Rachis		29. TRITICUM.	
	8	ci.V		30. Brachypódium.	
	A. C.	GI.	1	31. ELYMUS.	
wasan	* 19 F1.2 1-2rud	Gl.purp.	Low.pal.	19. MELICA.	
PA MESSER DELY	FL 3-4.	Gl. green.	Lor.pal	32. TRIÓDIA.	

(Continued.)

2NDLY SPIKELETS WITH 2 TO 20 FLOWERS (SOMETIMES ONLY 1 PERFECT AND 1 OR 2 MALE FLOWERS).

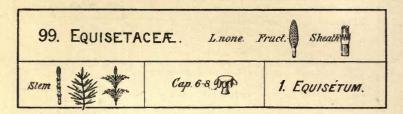
Spikelets clustered into an ovoid, or cylindrical, spike-	
like panicle.	
Styles long, filiform.	16 E C E C
Glumes nearly equal, toothed. Bracts rounded-	
heart-shaped .:	25. Moor-grass.
Styles feathery.	
Glumes unequal. Bracts none	26. Crested Hair- grass.
Glumes nearly equal. Bracts comb-like	27. Dog's-tail-
Spikelets sessile, or nearly so, in a simple spike.	(grass.
Spikelets one in each notch, set edgeways to rachis.	
Spike secund.	
Bracts comb-like	27. Do.
Glume 1 only.	
Rachis deeply notched	28. Darnel, Rye-grass.
Glumes 2.	(Lvj 0-grass.
Lower (or outer) palea veins parallel	40. Sclerochloa.
Lower (or outer) palea veins converging	39. Fescue-grass.
Spikelets one in each notch, set with their breadth to	
rachis.	
Glumes nearly equal. Rachis deeply notched.	
Spikelets ovate-lanceolate	29. Wheat-grass.
Glumes unequal. Rachis not indented. Spikelets	
linear-lanceolate	30. False Brome-
Spikelets 2 (or 3) in each notch of the rachis.	grass.
Glumes equal, as long as the flowers	31. Lyme-grass.
Spikelets in a secund raceme.	
Glumes as long as the flowers. Flowers 2, and 1 or 2	
rudiments.	
Glumes purple. Lower (or outer) palea entire	19. Melick.
Spikelets in a racemose panicle.	
Glumes as long as the flowers. Flowers 3 or 4.	
Glumes green. Lower (or outer) palea notched	32. Heath-grass.
	As the second

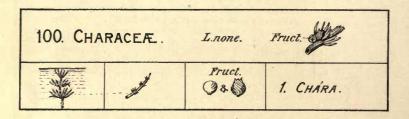
118	,	Di	riish vv	ua Piowers	
	Lon pal.	Pal	GI. V	Fl. dall purp.	33. PHRAGMÍTES.
	Low.pal.	Fl. 3	GI.	0,000	34. HIEROCHLOE.
		Fl. Zor3	GI.	Lor. pal.	35. CATABRÓSA.
			GI. 🕥	Fl. Up.fl. Vp.fl. Vp.fl	36. MOLINIA.
				Lom pal. >	37. PóA.
			Lompal.	Lon. reins 3-5 pal. parallel	37. Do.
		M. 4-20	Low.pal. at base	Spik!	38. BRÍZA.
STATE OF THE PARTY				Low. Veins3-5 pal. converge	39. FESTÚCA.
				Do. Peins 5 perallel faint	40. SCLEROCHLOA.
				Do. ribs 7 parallel strong	41. GLYCÉRIA.
	Lompai.	F1. 2-4	F1. 2 \$\$0	Upra VIona	
				Up.ft. Low.ft	43. HoLcus.
			F1.2	Low.pal.	44. CORYNEPHORUS.
				DO. 30 0	45. AÍRA.
			F1.2-4	Do. Pr.	46. AVÉNA.
				Do. No.	47. TRISÉTUM.
		Fl. 4-20 (see N: 46)	P8	Lor. pal.	48. DACTYLIS.
				Do. (2)	39. FESTUCA.
			8.8	Do.))	49. BRÓMUS.
FA.MESSER	DELT				

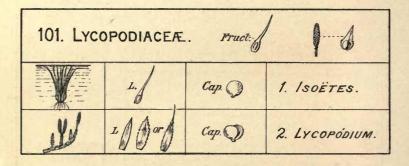
Spikelets in a lax panicle.	
Lower (or outer) palea very long, with long hairs at the base.	
Paleæ very unequal. Glumes unequal. Flowers dull	
purple	33. Reed-grass.
Lower (or outer) palea awnless.	B-44-01
Glumes as long as the flowers. Spikelet with 3	
flowers.	
Glumes equal. Upper flower hermaphrodite;	
stamens 2. Lower flowers 2, male; stamens 3	34. Holy-grass.
Glumes falling short of the flowers. Flowers 2 or 3. Glumes very unequal, blunt.	
Lower (or outer) palea truncate at top	35. Water-whorl-
Glumes nearly equal.	grass.
Flowers in a slender panicle, purple.	36. Lavender-
Upper flower with a rudiment	(Propp.
Lower (or outer) palea keeled at the base Glumes falling short of the flowers. Flowers 4 to 20.	37. Meadow-grass.
Lower (or outer) palea keeled at the base.	
Lower (or outer) palea veins 3 to 5, parallel	37. Do.
Lower (or outer) palea rounded at the base.	00 0 1:
Spikelets ovate or triangular	38. Quaking-grass.
Lower palea veins 3-5 converging Lower palea veins 5, parallel, faint	39. Fescue-grass. 40. Sclerochloa.
Lower palea ribs 7, parallel, strong	41. Sweet-grass.
Lower (or outer) palea awned.	
Glumes as long as the flowers. Spikelet with 2 to	
4 flowers.	Complete to the complete of
Flowers 2, hermaphrodite and male.	
Upper flower hermaphrodite, with a shortawn.	
Lower flower male, with a long, bent, twisted	40 Oct man
Upper flower male, with a bent or curved awn.	42. Oat-grass.
Lower flower hermaphrodite, awnless	43. Soft-grass.
Flowers 2, both hermaphrodite.	
Lower palea with an awn jointed in the middle,	
hairy at the joint; lower part of awn twisted, upper part club-shaped	44. Gray's-hair-
Lower palea truncate, jagged, with a short,	grass.
Lower palea truncate, jagged, with a short, straight, or bent and twisted awn; or bifid	
with a bent and twisted awn	45. Hair-grass.
Flowers 2 to 4, all hermaphrodite.	
Lower palea ending in 2 acute teeth, with a long, bent, twisted awn. Fruit hairy at the top	46. Oat.
Lower palea ending in 2 acute teeth, with a	Control of the contro
long, bent, twisted awn. Fruit glabrous at	47. Yellow Oatgrass.
the top	47. grass.
Glumes falling short of the flowers. Spikelet 4 to 20 flowers. (See No. 46.)	
Sheath of leaves divided the whole way down.	
Styles at the top of ovary.	
Lower palea compressed, keeled, awned just	
below the tip. Spikelets crowded, in tufts,	48. Cock's-foot-
Lower palea rounded at back, very acute, awn	To. grass.
terminal (rarely below the tip)	39. Fescue-grass.
Sheath of leaves divided half-way down.	
Styles below the tip of ovary.	EN A MUSICISI
Lower palea rounded at back, awned below the tip	49. Brome-grass.
tip	zo. Diomo-grass.

British Wild Flowers

CRYPTOGAMEA. CLASS III. ACROGENA.









FLOWERLESS PLANTS. CLASS III. ACROGENS.

99. HORSETAIL FAMILY. (Leaves none. Fruct Stem surrounded joints.	ification in a terminal cone. with toothed sheaths at the
Stem simple, or with whorled branches, simple or compound. Capsules 6-8 on the sides of peltate scales	1.{Horsetail, Paddock-pipes.

100. CHARA FAMILY. } Leaves none. Fructification axillary.
Submerged aquatic herbs, with simple or compound whorled branches 1. Chara.

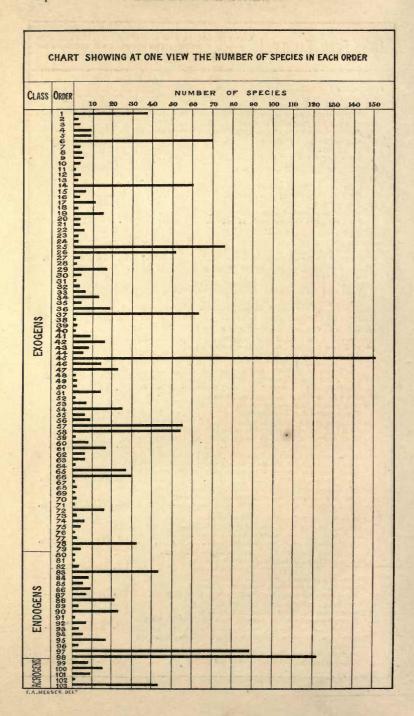
101. CLUB-MOSS FAMILY. { Fructification in the axils of the leaves, or in the axils of the bracts of terminal spikes.				
Submerged aquatic herbs, stemless. Leaves linear, with enlarged bases. Capsules not opening				

102. PILLWORT FAMILY, { Fructification axillary. Rootstock creeping. Leaves 1 to 3 together, circinate when young.
Leaves slender, setaceous. Capsule globular, pubescent, 4-celled 1. Pillwort.

103. FILICES.				
FrucUfication terminal		by.	PI	1. OPHIOGLOSSUM.
	*			2. Botrychium.
				3. OSMUŃDA.
Fructification in cupshaped			B	4. TRICHOMANES.
involucres	20		De la	5. HYMENOPHYLLUM.
				6. ADIANTUM.
Pructification on margin				7. PTÉRIS.
(Sec N 4 9)		J. Market Balling		8. BLECHNUM.
				9. CRYPTOGRAMME.
				10. POLYPÓDIUM.
Fructification on veins	***		40	11. WOODSIA.
1	@			12. LASTREA.
	•			13. POLYSTICHUM.
	0			14. CYSTOPTERIS.
T. F. La	•		继续	15. GYMNOGRAMME.
Fructification	0			16. ATHYRIUM.
on veins		J H	BAPP	17. ASPLÉNIUM.
			TO THE REAL PROPERTY.	18. CETERACH.
FA MESSER. DELT		4		19. SCOLOPENDRIUM.

103. FERN FAMILY. { Leaves (fronds) simple or variously divided; circinate when young. Fructification on the under side, margin, or end of frond.

Fructification terminal. Capsules connate, in a simple spike, Stem simple, with a single frond.	
Fronds simple, ovate or lanceolate	1. Adder's-tongue.
Capsules in a branched spike or panicle. Fronds pinnate, solitary. Segments half-moon- or kidney-shaped.	2. Moonwort.
Capsules in a compound panicle. Fronds 2-pinnate, Segments lanceolate or oblong	3. Flowering-
Fructification in cup-shaped involucres.	Fern-royal.
Involucre entire. Fronds 2- or 3-pinnate, triangular-lanceolate in outline. Final segments oblong	4. Bristle-fern.
Involucre 2-lobed. Fronds pinnate, ovate-lanceolate in outline.	5. Filmy-fern.
Fructification on margin of frond.	o. Pilling loin.
Clusters (sori) oblong or roundish, covered by the reflexed margin. Fronds 2- or 3-pinnate, broadly ovate in ontline. Pinnules fan- or wedge-shaped, lobed	6. M aiden-hair.
Clusters continuous, covered by an indusium formed of the reflexed margin.	
Fronds 2- or 3-pinnate, broadly triangular in outline. Final segments of frond lanceolate, entire	7. Brake, Bracken.
Clusters continuous, covered by a scarious indusium. Fronds pinnatifid or pinnate, narrow-lanceolate in outline.	(Diacken.
Segments lanceolate or linear	8. Hard-fern.
Fructification on veins, clusters circular, or nearly so. Clusters naked, not covered by an indusium.	
Fronds 2- or 3-pinnate, ovate-triangular in outline.	E LE DOM FRE
Pinnules of the fertile fronds oblong-lanceolate, sori ulti- mately confluent, covered by margin of pinnule. Pinnule	Rock-brake,
of barren frond broad, toothed	9. Parsley-fern.
Final segments oblong to ovate, entire, crenate or toothed Clusters with an inferior capillary indusium.	10. Polypody.
Fronds pinnate, lanceolate or oblong in outline. Pinnæ oblong or ovate, bluntly lobed	11. Woodsia.
Clusters covered by reniform indusium, attached by notch. Fronds 1- or 2-pinnate, lanceolate to ovate in outline.	
Final segments oblong or ovate, entire, or crenately or	12. Shield-fern.
Clusters covered by a circular industum, attached by centre.	12. Mileid-leili.
Fronds 1- or 2-pinnate, linear- or broadly-lanceolate in outline. Final segments lanceolate to ovate, more or less auricled	
and curved, toothed	13. Prickly-fern.
Fronds 2- or 3-pinnate, lanceolate or triangular in outline. Final segments oblong or ovate, lobed, and bluntly toothed	14. Bladder-fern.
Fructification on veins, clusters oblong or linear. Clusters oblong, naked, not covered by an induslum.	
Fronds 1- or 2-pinnate, ovate or oblong in outline. Final segments obovate-cuneate, toothed	15. Gymnogram.
Clusters oblong, covered by an oblong-reniform industum. Fronds 2-pinnate, broadly lanceolate in outline. Pinnules oblong-lanceolate, pinnattfid toothed	16. Lady-fern.
Clusters linear, covered by a linear indusium. Fronds 1-, 2-, or 3-pinnate, various in outline.	
Final segments ovate, lanceolate, obovate, or crenate Clusters linear, indusium (?), a very narrow ridge.	17. Spleenwort.
Fronds pinnatifid, linear-lanceolate in outline. Segments ovate-obtuse, covered with chaffy scales on the	
back	18. Rustyback.
Clusters linear, 2 together, indusia opening by a fissure along the centre.	Constant of the
Fronds strap-shaped, base cordate. Clusters parallel, at right angles to the midrib	19. Hart's-tongue.



CATALOGUE OF BRITISH PLANTS.

1. Ranunculaceæ.

- 1. ACTÆA. spicata.
- 2. CLEMATIS. Vitalba.
- 3. THALICTRUM.
 alpinum.
 minus.
 majus.
 saxatile.
 flayum.
- 4. ANEMONE.
 Pulsatilla.
 nemorosa.
- 5. Myosurus.
- 6. ADONIS.
- 7. RANUNCULUS. aquatilis. Lenormandi. hederaceus. sceleratus. ophioglossifolius. Flammula. reptans. Lingua. auricomus. acris. repens. bulbosus. hirsutus. chærophyllus. parviflorus. arvensis.
- Ficaria.

 8. PÆONIA.

 Corallina.
- 9. CALTHA. palustris.
- 10. ERANTHIS. hyemalis.
- 11. TROLLIUS. europæus.
- 12. HELLEBORUS. viridis. fœtidus.
- 13. DELPHINIUM. Ajacis.

- 14. AQUILEGIA. vulgaris.
- 15. ACONITUM. Napellus.

2. Berberidaceæ.

- 1. Berberis. vulgaris.
- 2. EPIMEDIUM. alpinum.

3. Nymphæaceæ.

- 1. NYMPHÆA.
- 2. NUPHAR. lutea. pumila.

4. Papaveraceæ.

- 1. PAPAVER. somniferum. Rhœas. dubium.
- Argemone. hybridum. 2. MECONOPSIS.
- cambrica.
 3. RŒMERIA.
 hybrida.
- 4. CHELIDONIUM.
- 5. GLAUCIUM. luteum.

5. Fumariaceæ.

- 1. FUMARIA.
 pallidiflora.
 confusa.
 muralis.
 densiflora.
 officinalis.
 Vaillantii.
- parviflora.
 2. CORYDALIS.
 lutea.
 claviculata.

6. Cruciferæ.

- 1. CRAMBE. maritima.
- 2. ISATIS. tinctoria.
- 3. CAKILE. maritima.
- 4. ARMORACIA.
- 5. COCHLEARIA. officinalis. danica. anglica.
- 6. CAMELINA. sativa.
- 7. ALYSSUM.
 calycinum.
 maritimum.
- 8. DRABA.
 verna.
 muralis.
 incana.
 rupestris.
 aizoides.
- 9. IBERIS. amara.
- 10. SENEBIERA. didyma. Coronopus.
- 11. LEPIDIUM.
 latifolium.
 ruderale.
 sativum.
 campestre.
 Smithii.
 Draba.
- 12. TEESDALIA. nudicaulis.
- 13. HUTCHINSIA. petræa.
- 14. SUBULARIA. aquatica.
- 15. CAPSELLA. Bursa-pastoris.
- 16. THLASPI.

 arvense.

 perfoliatum.

 alpestre.

- 17. DENTARIA. bulbifera.
- 18. MATTHIOLA. sinuata. incana.
- 19. HESPERIS. matronalis.
- 20. CARDAMINE.
 amara.
 pratensis.
 hirsuta.
 sylvatica.
 impatiens.
- 21. ALLIARIA. officinalis.
- 22. ARABIS.
 thaliana.
 petræa.
 stricta.
 ciliata.
 hirsuta.
 Turrita.
 perfoliata.
- 23. DIPLOTAXIS. tenuifolia. muralis.
- 24. NASTURTIUM.
 officinale.
 sylvestre.
 palustre.
 amphibium.
- 25. CHEIRANTHUS. Cheiri.
- 26. ERYSIMUM. cheiranthoides.
- 27. RAPHANUS.
 Raphanistrum.
 maritimus.
- 28. SINAPIS. arvensis. alba. nigra. incana.
- 29. Brassica. oleracea. monensis. campestris.
- 30. BARBAREA. vulgaris. præcox.
- 31. Sisymbrium.
 officinale.
 Sophia.
 Irio.

7. Resedaceæ.

1. RESEDA. lutea. Luteola. alba.

8. Cistaceæ.

1. HELIANTHEMUM, guttatum. canum, vulgare. polifolium.

9. Violaceæ.

1. VIOLA.

palustris.
odorata.
hirta.
canina.
tricolor.

10. Droseraceæ.

1. Drosera.
rotundifolia.
anglica.
longifolia.

11. Frankeniaceæ.

1. FRANKENIA. lævis.

12. Polygalaceæ.

1. Polygala. vulgaris. calcarea. amara.

13. Elatinaceæ.

1. ELATINE. hexandra. Hydropiper.

14. Caryophyllaceæ.

Armeria.
deltoides.
cæsius.
plumarius.
prolifer.
Caryophyl lus.

1. DIANTHUS.

- 2. SAPONARIA. officinalis.
- 3. SILENE.
 inflata,
 maritima.
 conica.
 anglica.
 acaulis.
 Otites.
 nutans.
- noctiflora.
 4. LYCHNIS.
 vespertina.
 liurna.
 Flos-cuculi.
 Viscaria.

- alpina.
 Githago.
- 5. CHERLERIA. sedoides.
- 6. STELLARIA.
 aquatica.
 nemorum.
 media.
 Holostea.
 glauca.
 graminea.
 uliginosa.
- 7. HOLOSTEUM. umbellatum.
- 8. POLYCARPON. tetraphyllum.
- 9. SPERGULARIA. rubra. marina.
- 10. HONKENEYA. peploides.
- 11. ALSINE.
 verna.
 rubella.
 tenuifolia.
 uliginosa.
- 12. ARENARIA.
 trinervis.
 serpyllifolia.
 norvegica.
 ciliata.
- 13. MŒNCHIA.
- 14. SAGINA.
 maritima,
 apetala.
 ciliata.
 procumbens.
 saxatilis.
 subulata,
 nivalis.
 nodosa.
- 15. SPERGULA. arvensis.
- 16. CERASTIUM,
 tetrandrum.
 semidecandrum.
 glomeratum.
 triviale,
 alpinum.
 latifolium.
 arvense,
 trigynum.

15. Malvaceæ.

- 1. LAVATERA. arborea.
- 2. MALVA.
 moschata.
 sylvestris.
 rotundifolia.

3. ALTHÆA. officinalis. hirsuta.

16. Tiliaceæ.

1. TILIA.
grandifolia.
intermedia.
parvifolia.

17. Hypericaceæ.

1. HYPERICUM.
Androsæmum.
calycinum.
perforatum.
dubium.
tetrapterum.
humifusum.
linariifolium.
pulchrum.
hirsutum.
montanum.
elodes.

18. Aceraceæ.

1. Acer.
Pseudo-platanus.
campestre.

19. Geraniaceæ.

1. GERANIUM.
sanguineum.
phæum.
sylvaticum.
pratense.
pyvenaicum.
molle.
pusillum.
rotundifolium.
dissectum.
columbinum.
lucidum.

2. ERODIUM.
cicutarium.
moschatum.
maritimum.

20. Balsaminaceæ.

Robertianum.

1. IMPATIENS.
Noli-me-tangere.
fulva.
parviflora,

21. Oxalidaceæ.

1. Oxalis.
Acetosella.
corniculata.
stricta.

22. Linaceæ.

1. RADIOLA. millegrana.

2. LINUM.

catharticum.

perenne.

angustifolium.

usitatissimum.

23. Celastraceæ.

1. Euonymus. europæus.

2. STAPHYLEA. pinnata.

24. Rhamnaceæ.

1. RHAMNUS. catharticus. Frangula.

25. Leguminosæ.

1. ULEX. europæus. Gallii. nanus.

2. GENISTA.
anglica.
pilosa.
tinetoria.

3. SAROTHAMNUS. scoparius.

4. Ononis.
spinosa.
arvensis.
reclinata.

5. MEDICAGO.
sativa.
sylvestris.
falcata.
lupulina.
denticulata.
maculata.
minima.

6. TRIFOLIUM. subterraneum. pratense. medium. ochroleucum. maritimum. incarnatum. arvense. Bocconi. striatum. scabrum. glomeratum. suffocatum. strictum. hybridum. repens. fragiferum.

procumbens. minus. filiforme. stellatum.

7. MELILOTUS. officinalis. alba. arvensis.

8. TRIGONELLA. ornithopodioides.

9. LOTUS.

corniculatus.

major.

angustissimus.

hispidus.

10. ANTHYLLIS. vulneraria.

11. ONOBRYCHIS, sativa.

12. OXYTROPIS. Halleri. campestris.

13. ASTRAGALUS.
alpinus.
hypoglottis.
glycyphyllus.

14. ORNITHOPUS, perpusillus.

15. ARTHROLOBIUM. ebracteatum.

16. HIPPOCREPIS. comosa.

17. OROBUS. tuberosus. niger.

18. Vicia,
hirsuta,
tetrasperma,
gracilis,
Cracca,
Orobus,
sylvatica,
sepium,
lutea,
sativa,
lathyroides,
bithynica,

19. LATHYRUS.
Aphaca.
Nissolia.
hirsutus.
pratensis.
tuberosus.
sylvestris.
palustris.
maritimus.

26. Rosaceæ.

1. Rosa. spinosissima.

villosa. involuta. rubiginosa. hibernica. canina. arvensis.

- 2. Rubus. Idans. fruticosus. cæsins. saxatilis. Chamæmorus.
- 3. PRUNUS. communis. Avium. Cerasus. Padus.
- 4. MESPILUS. germanica.
- 5. COTONEASTER. vulgaris.
- 6. CRATÆGUS. Oxyacantha.
- 7. PYRUS. torminalis. Aucuparia. communis. Malns.
- 8. ALCHEMILLA. arvensis. vulgaris. alpina. conjuncta.
- 9. SANGUISORBA. officinalis.
- 10. POTERIUM. Sanguisorba.
- 11. SPIRÆA. salicifolia. Ulmaria. Filipendula,
- 12. AGRIMONIA. Eupatoria. odorata.
- 13. DRYAS. octopetala.
- 14. FRAGARIA. vesca.
- elatior. 15. POTENTILLA. Fragariastrum. verna. alpestris. Tormentilla. reptans. anserina. rupestris. argentea.

fruticosa.

16. GEUM. urbanum. rivale.

- 17. SIBBALDIA. procumbens.
- 18. COMARUM. palustre.

27. Lythraceæ.

- 1. LYTHRUM. Salicaria. Hyssopifolia.
- 2. PEPLIS. Portula.

28. Tamariscaceæ.

1. TAMARIX. anglica.

29. Onagraceæ.

- 1. CIRCÆA. lutetiana. alpina.
- 2. ISNARDIA. palustris.
- 3. ŒNOTHERA. biennis. odorata.
- 4. EPILOBIUM. angustifolium. hirsutum. parviflorum. montanum. lanceolatum. roseum. tetragonum. obscurum. palustre. alsinifolium. anagallidifolium. alpinum.

30. Haloragaceæ.

- 1. HIPPURIS. vulgaris.
- 2. MYRIOPHYLLUM. verticillatum. spicatum. alterniflorum.

31. Cucurbitaceæ.

1. BRYONIA. dioica.

32. Portulaceæ.

- 1. MONTIA. fontana.
- 2. CLAYTONIA. alsinoides. perfoliata.

33. Paronychiaceæ.

- 1. SCLERANTHUS. annuus. perennis.
- 2. HERNIARIA. glabra. ciliata.
- 3. ILLECEBRUM. verticillatum.
- 4. CORRIGIOLA. littoralis.

34. Crassulaceæ.

- 1. TILLÆA. muscosa.
- 2. COTYLEDON. Umbilicus.
- 3. SEDUM. Rhodiola. Telephium. villosum. album. dasyphyllum. anglicum. acre. sexangulare. reflexum.
- rupestre. 4. SEMPERVIVUM. tectorum.

35. Ribesiaceæ.

1. RIBES. Grossularia. alpinum. rubrum. nigrum.

36. Saxifragaceæ.

- 1. CHRYSOSPLENIUM. oppositifolium. alternifolium.
- 2. PARNASSIA.
- palustris.
 3. SAXIFRAGA. oppositifolia. nivalis. stellaris. Geum. hirsuta. umbrosa. Hirculus. aizoides. tridactvlites. rivularis. cernua. granulata. cæspitosa. sponhemica.

hypnoides.

hirta.

37. Umbelliferæ.

- 1. SANICULA. europæa.
- 2. ERYNGIUM.
 maritimum.
 campestre.
- 3. CAUCALIS. dancoides. latifolia.
- 4. TORILIS.
 infesta.
 Anthriscus.
 nodosa.
- 5. DAUCUS. Carota.
- 6. SESELI. Libanotis.
- 7. HYDROCOTYLE. vulgaris.
- 8. BUPLEURUM.
 rotundifolium.
 aristatum.
 tenuissimum.
 falcatum.
- 9. ASTRANTIA. major.
- 10. SMYRNIUM. Olusatrum.
- ÆGOPODIUM. Podagraria.
- 12. APIUM. graveolens.
- 13. PIMPINELLA. Saxifraga. magna.
- 14. Petroselinum. sativum. segetum.
- 15. HELOSCIADIUM. nodiflorum. inundatum.
- 16. Sison. Amomum.
- 17. SIUM. latifolium. angustifolium.
- 18. TRINIA. vulgaris.
- 19. CARUM.
 verticillatum.
 Carui.
 Bulbocastanum.
 flexuosum.
- 20. CONIUM. maculatum.
- 21. Physospermum. cornubiense.
- 22. SCANDIX.
 Pecten-Veneris.
 - 23. CHÆROPHYLLUM. Anthriscus.

- sativum. sylvestre. temulum.
- 24. CICUTA. virosa.
- 25. MYRRHIS.
- 26. LIGUSTICUM. scoticum.
- 27. MEUM.
 Athamanticum.
- 28. SILAUS. pratensis.
- 29. CRITHMUM. maritimum.
- 30. ENANTHE.
 fistulosa.
 pimpinelloides.
 silaifolia.
 Lachenalii.
 crocata.
 Phellandrium.
 fluviatilis.
- 31. CORIANDRUM. sativum.
- 32. ÆTHUSA. Cynapium.
- 33. FENICULUM.
- vulgare.
 34. HERACLEUM.
- Sphondylium. 35. PASTINACA.
- sativa. 36. Tordylium.
- maximum. 37. ANGELICA. sylvestris.
- 38. PEUCEDANUM.
 officinale.
 palustre.
 Ostruthium.

38. Hederaceæ.

1. HEDERA. Helix.

39. Cornaceæ.

1. Cornus.
suecica.
sanguinea.

40. Loranthaceæ.

1. VISCUM. album.

41. Caprifoliaceæ.

- 1. LINNÆA. borealis.
- 2. LONICERA.
 - Caprifolium. Periclymenum. Xylosteum.

- 3. VIBURNUM. Opulus. Lantana.
- 4. Sambucus. nigra. Ebulus.
- 5. ADOXA.
 Moschatellina.

42. Rubiaceæ.

- 1. Rubia.
- peregrina.
 2. GALIUM.
 - boreale.
 cruciatum.
 verum.
 erectum.
 Mollugo.
 saxatile.
 sylvestre.
 palustre.
 uliginosum.
 anglicum.
 Aparine.
 tricorne.
- 3. ASPERULA. odorata.
- cynanchica.
 4. SHERARDIA.
 arvensis.

43. Valerianaceæ.

- 1. CENTRANTHUS.
- 2. VALERIANA. dioica. officinalis. pyrenaica.
- 3. VALERIANELLA.
 olitoria.
 carinata.
 Auricula.
 dentata.

44. Dipsacaceæ.

- 1. DIPSACUS.
 sylvestris.
 pilosus.
- 2. Scabiosa. succisa. columbaria.
- 3. KNAUTIA. arvensis.

45. Compositæ.

- 1. Lapsana. communis.
- 2. Arnoseris. pusilla.
- 3. CICHORIUM.
- Intybus.
 4. TARAXACUM.
 officinale.

- 5. LACTUCA. virosa. Scariola. saligna. muralis.
- murans.
 6. CREPIS.
 fœtida.
 taraxacifolia.
 setosa.
 virens,
 biennis.
 succisifolia.
 paludosa.
- 7. HIERACIUM. Pilosella. aurantiacum. dubium. melanocephalum. holosericeum. eximium. calenduliflorum. gracilentum. globosum. nigrescens. lingulatum. senescens. chrysanthum. anglicum. iricum. pallidum. lasiophyllum. Gibsoni. argenteum. nitidum. aggregatum. murorum. cæsium. obtusifolium. flocculosum. vulgatum. maculatum. gothicum. tridentatum. prenanthoides. strictum. umbellatum. crocatum. rigidum. corymbosum. boreale.
 - 8. MULGEDIUM. alpinum.
 - 9. Sonchus.
 oleracens.
 asper.
 artensis.
 palustris.
- 10. Hypochæris. glabra. radicata. maculata.

- 11. TRAGOPOGON.
 pratensis.
 porrifolius.
- 12. HELMINTHIA. echioides.
- 13. THRINCIA.
- 14. LEONTODON.
 hispidus.
 autumnalis.
- 15. Picris.
 hieracioides.
- 16. TANACETUM. vulgare.
- 17. Diotis.
- 18. ARTEMISIA.
 Absinthium.
 vulgaris.
 campestris.
 maritima.
- 19. BIDENS. cernua. tripartita.
- 20. FILAGO.
 germanica.
 apiculata.
 spathulata.
 minima.
 gallica.
- 21. GNAPHALIUM.
 uliginosum.
 luteo-album.
 sylvaticum.
 norvegicum.
 supinum.
- 22. ANTENNARIA.
 margaritaceum.
 dioicum.
- 23. LINOSYRIS. vulgaris.
- 24. PETASITES.
- vulgaris.
 25. ARCTIUM.
 majus.
 minus.
 intermedium.
 nemorosum.
- 26. EUPATORIUM. cannabinum.
- 27. SERRATULA. tinctoria.
- 28. SAUSSUREA. alpina.
- 29. CENTAUREA.
 nigra.
 Scabiosa.
 Cyanus.
 aspera.
 Calcitrapa.

solstitialis.

- 30. CARLINA. vulgaris.
- 31. SILYBUM.
 Marianum.
- 32. CARDUUS.
 tenniflorus.
 nutans.
 crispus.
 lanceolatus.
 eriophorus.
 palustris.
 tuberosus.
 pratensis.
 heterophyllus.
 acaulis.
 aryensis.
- 33. Onopordum.
 Acanthium.
- 34. GALINSOGA. parviflora.
- 35. Bellis. perennis.
- 36. MATRICARIA.

 Parthenium.
 inodora.
 Chamomilla.
- 37. ANTHEMIS.
 Cotula.
 arvensis.
 nobilis.
- 38. ACHILLEA.
 Millefolium.
 Ptarmica.
- 39. CHRYSANTHEMUM. segetum.
- Leucanthemum.
 40. INULA.
 Helenium.
- Conyza. crithmoides. 41. PULICARIA. dysenterica.
- vulgaris.
 42. SOLIDAGO.
 Virga-aurea.
- 43. SENECIO.
 vulgaris.
 sylvaticus.
 viscosus.
 squalidus.
 erucifolius.
 Jacobæa.
 aquaticus.
 saracenicus.
 paludosus.
 paludstris.
- 44. Tussilago. Farfara.
- 45. DORONICUM.

 Pardalianches.

 plantagineum.

campestris.

46. ERIGERON.
canadensis.
acris.
alpinus.

47. ASTER.
Tripolium.

46. Campanulaceæ.

1. LOBELIA.
Dortmanna.
urens.

2. JASIONE.

montana.
3. PHYTEUMA.
orbiculare.
spicatum.

4. CAMPANULA.

glomerata.
Trachelium.
latifolia.
rapunculoides.
rotundifolia.
Rapunculus.
patula.

5. WAHLENBERGIA. hederacea.

6. SPECULARIA.

47. Ericaceæ.

1. VACCINIUM.
Oxycoccos.
Vitis-idæa.
uliginosum.
Myrtillus.

2. CALLUNA. vulgaris.

3. ERICA.
ciliaris.
Tetralix.
cinerea.
vagans.

mediterranea.
4. MENZIESIA.

polifolia. cærulea.

5. AZALEA. procumbens.

procumbens.
6. Arbutus.

Unedo.
7. ARCTOSTAPHYLOS.
alpina.

Uva-ursi.
8. ANDROMEDA.
polifolia.

9. MONOTROPA. Hypopitys.

10. PYROLA.
rotundifolia.
media.

minor. secunda. uniflora.

48. Aquifoliaceæ.

1. ILEX. Aquifolium.

49. Jasminaceæ.

1. LIGUSTRUM.

vulgare.
2. FRAXINUS.
excelsior.

50. Apocynaceæ.

1. VINCA. major. minor.

51. Gentianaceæ.

1. GENTIANA.
Pneumonanthe.
verna.
nivalis.
Amarella.

campestris.
2. MENYANTHES.
trifoliata.

3. ERYTHRÆA.
latifolia.
littoralis.
Centaurium.
pulchella.

4. CICENDIA.

pusilla.
filiformis.

5. LIMNANTHEMUM. nymphæoides.

6. CHLORA. perfoliata.

52. Polemoniaceæ.

1. Polemonium.

53. Convolvulaceæ.

1. CONVOLVULUS. arvensis. sepium. Soldanella.

2. CUSCUTA.

Epilinum.
europæa.
Epithymum.
Trifolii.

54. Boraginaceæ.

1. Pulmonaria. angustifolia. officinalis. 2. MERTENSIA. maritima.

3. Echium. vulgare.

plantagineum.
4. Lithospermum.
purpureo-cæruleum

purpureo-cæruleum officinale. arvense.

5. Symphytum. officinale. tuberosum.

6. Borago. officinalis.

7. Lycopsis. arvensis.

8. ASPERUGO. procumbens.

9. CYNOGLOSSUM. officinale. montanum.

10. ANCHUSA.
officinalis.
sempervirens.

11. MYOSOTIS.

cæspitosa.
palustris.
repens.
alpestris.
sylvatica.
arvensis.
collina.
versicolor.

55. Solanaceæ.

1. Solanum.
Dulcamara.
nigrum.

2. ATROPA.
Belladonna.

3. LYCIUM. barbarum.

4. Hyoscyamus.

5. DATURA. Stramonium.

56. Orobanchaceæ.

1. OROBANCHE,
cærulea.
major.
rubra.
caryophyllacea.
elatior.
Picridis.
Hederæ.
minor.

2. LATHRÆA. squamaria.

57. Scrophulariaceæ.

- 1. VERONICA. hederifolia. polita. agrestis. Buxbaumii. triphyllos. verna. arvensis. serpyllifolia. alpina. saxatilis. spicata. officinalis. Chamædrys. montana. scutellata. Anagallis. Beccabunga.
- 2. VERBASCUM.
 Thapsus,
 pulverulentum.
 Lychnitis,
 nigrum,
 virgatum.
 Blattaria,
- 3. PEDICULARIS. palustris. sylvatica.
- 4. RHINANTHUS. Crista-galli. major.
- 5. MELAMPYRUM. cristatum. arvense. pratense. sylvaticum.
- 6. BARTSIA.
 Odontites.
 viscosa.
 alpina.
- 7. EUPHRASIA. officinalis.
- 8. LINARIA.

 Cymbalaria.
 Elatine.
 purpurea.
 spuria.
 Pelisseriana.
 repens.
 vulgaris.
 minor.
 supina.
- 9. ANTIRRHINUM.
 majus.
 Orontium.
- 10. SCROPHULARIA. umbrosa. nodosa. Scorodonia.

- vernalis.
- 11. DIGITALIS.
 purpurea.
 12. MIMULUS.
- luteus.
 13. Limosella.
 aquatica.
- 14. SIBTHORPIA. europæa.

58. Labiatæ.

- 1. Lycopus.
- europæns.
 2. SALVIA.
 Verbenaca.
 pratensis.
- 3. MENTHA.
 rotundifolia.
 alopecuroides.
 sylvestris.
 viridis.
 Piperita.
 hirsuta.
 sativa.
 arvensis.
- Pulegium.
 4. TEUCRIUM.
 Botrys.
 Scordium.
 Chamædrys.

aquatica.

- Scorodonia.

 5. AJUGA.
 reptans.
 pyramidalis.
 Chamæpitys.
- 6. THYMUS.
 Serpyllum.
 Chamædrys.
- 7. MELISSA. officinalis.
- 8. ORIGANUM. vulgare.
- 9. NEPETA. Cataria. Glechoma.
- 10. SCUTELLARIA. galericulata. minor.
- 11. PRUNELLA. vulgaris.
- 12. CALAMINTHA.
 Clinopodium.
 Acinos.
 Nepeta.
 sylvatica.
- officinalis.

 13. MELITTIS.

 Melissophyllum.
- 14. MARRUBIUM. vnlgare.

- 15. BALLOTA.
- nigra.
 16. LAMIUM.
 amplexicanle.
 - intermedium. incisum. purpureum. maculatum. album.
- Galeobdolon.

 17. LEONURUS.
- Cardiaca.
 18. STACHYS.
 Betonica.
 germanica.
 palustris.
 sylvatica.
- *arvensis.

 19. GALEOPSIS.
 Ladanum.
 versicolor.
 Tetrahit.
 dubia.

59. Verbenaceæ.

1. VERBENA. officinalis.

60. Lentibulariaceæ.

- 1. PINGUICULA.
 vulgaris.
 grandiflora.
 al pina.
 lusitanica.
- 2. UTRICULARIA.
 vulgaris.
 neglecta.
 minor.
 intermedia.

61. Primulaceæ.

- 1. CENTUNCULUS. minimus.
- 2. HOTTONIA. palustris.
- 3. CYCLAMEN.
 hederifolium.
- 4. PRIMULA.
 vulgaris.
 Veris.
 elatior.
 farinosa.
 scotica.
- 5. Samolus. Valerandi.
- 6. GLAUX. maritima.
- 7. Lysimachia. thyrsiflora. vulgaris.

Nummularia,

- 8. ANAGALLIS. arvensis. tenella.
- 9. TRIENTALIS. europæa.

62. Plumbaginaceæ.

1. STATICE.
Limonium.
bahusiensis.
binervosa.
caspia.

2. ARMERIA. maritima. plantaginea.

63. Plantaginaceæ.

1. PLANTAGO.
major.
media.
lanceolata.
maritima.
coronopus.

2. LITTORELLA. lacustris.

64. Amaranthaceæ.

1. AMARANTHUS. blitum.

65. Chenopodiaceæ.

1. SALICORNIA. herbacea. radicans.

2. SUÆDA. fruticosa. maritima.

maritima 3. SALSOLA. Kali.

4. ATRIPLEX.
littoralis.
patula.
angustifolia.
erecta.
deltoidea.
nitens.
Babingtonii.
arenaria.
portulacoides.
pedunculata.

5. CHENOPODIUM.
polyspermum.
olidum.
album.
ficifolium.
murale.
hybridum.

urbicum.

rubrum.
botryoides.
glaucum.
Bonus Henricus.

6. Beta. maritima.

66. Polygonaceæ.

1. RUMEX.
conglomeratus.
sanguineus.
maritimus.
palustris,
pulcher.
obtusifolius.
acutus.
crispus.
aquaticus.
Hydrolapathum.
maximus.
alpinus.
Acetosa.
Acetosella.

2. OXYRIA. reniformis.

3. POLYGONUM.
Convolvulus.
dumetorum.
aviculare.
Raii.
maritimum.
Hydropiper.
minus.
mite.
Persicaria.
lapathifolium.
maculatum.
amphibium.
Bistorta.
viviparum.

4. FAGOPYRUM. esculentum.

67. Elæagnaceæ.

1. HIPPOPIIAË. rhamnoides.

68. Thymelaceæ.

1. DAPHNE.
Mezereum.
Laureola.

69. Santalaceæ.

1. THESTUM. humifusum.

70. Aristolochiaceæ.

1. ARISTOLOCHIA. Clematitis. 2. ASARUM. europæum.

71. Empetraceæ.

1. Empetrum. nigrum.

72. Euphorbiaceæ.

1. MERCURIALIS. perennis.

annua. 2. EUPHORBIA. Peplis. Helioscopia. platyphylla. stricta. hiberna. amygdaloides. Esula. Cyparissias. Paralias. portlandica. Peplus. exigua. Lathyris. 3. Buxus.

sempervirens. 73. Ceratophyllaceæ.

1. CERATOPHYLLUM. demersum. submersum.

74. Callitrichacem.

1. CALLITRICHE.
verna.
obtusangula.
stagnalis.
hamulata.
truncata.
autumnalis.

75. Urticacem.

1. PARIETARIA.
diffusa.

2. URTICA.
dioica.
pilulifera.
urens.

76. Cannabinaceæ.

1. Humulus. Lupulus.

77. Ulmaceæ.

1. ULMUS. montana. campestris.

78. Amentaceæ.

- 1. ALNUS. glutinosa.
- 2. BETULA. alba. glutinosa.
- nana. 3. SALIX. pentandra. fragilis. alba. triandra. purpurea. viminalis. aurita. caprea. phylicifolia. nigricans. repens. lanata. Lapponum. Sadleri. Arbuscula. Myrsinites.
- reticulata. 4. MYRICA. Gale.
- 5. Populus. alba. canescens. tremula. nigra.

herbacea.

- 6. CORYLUS. Avellana.
- 7. CARPINUS. Betulus.
- 8. FAGUS. sylvatica.
- 9. QUERCUS. Robur.
- 10. CASTANEA. vulgaris.

79. Coniferæ.

- 1. PINUS. sylvestris.
- 2. JUNIPERUS. communis. nana.
- 3. TAXUS. baccata.

80. Trilliaceæ.

1. PARIS. quadrifolia.

81. Dioscoreaceæ.

1. TAMUS. communis.

82. Hydrocharidaceæ.

- 1. ANACHARIS. Alsinastrum.
- 2. HYDROCHARIS. Morsus-ranæ.
- 3. STRATIOTES. aloides.

83. Orchidaceæ.

- 1. EPIPOGUM. aphyllum.
- 2. CORALLORIIIZA. innata.
- 3. NEOTTIA. Nidus-avis.
- 4. NEOTINEA. intacta.
- 5. ORCHIS. hircina. pyramidalis. ustulata. purpurea. militaris. Simia. Morio. mascula. laxiflora. incarnata.
- latifolia. maculata. 6. GYMNADENIA.
- conopsea. 7. HABENARIA. viridis. bifolia. chlorantha.
- albida. 8. GOODYERA.
- repens. 9. SPIRANTHES. autumnalis. æstivalis.
- gemmipara. 10. CYPRIPEDIUM. Calceolus.
- 11. MALAXIS.
- paludosa. 12. LIPARIS.
- Loeselii. 13. HERMINIUM.
- Monorchis.
- 14. ACERAS. anthropophora.
- 15. CEPHALANTHERA. rubra. ensifolia.
- grandiflora. 16. OPHRYS. apifera. aranifera.

- arachnites. muscifera.
- 17. LISTERA. cordata. ovata.
- 18. EPIPACTIS. latifolia. viridans. rubiginosa. palustris.

84. Iridaceæ.

- 1. GLADIOLUS. illyricus.
- 2. IRIS. fætidissima. Pseudacorus. tuberosa.
- 3. CROCUS. vernus.
- nudiflorus. 4. TRICHONEMA. Columnæ.
- 5. SISYRINCHIUM. Bermudiana.

85. Amaryllidaceæ.

- 1. NARCISSUS. Pseudo-narcissus.
- biflorus. 2. GALANTHUS. nivalis.
- 3. LEUCOJUM. æstivum. vernum.

86. Alismacem.

- 1. SAGITTARIA. sagittifolia.
- 2. ALISMA. Plantago. ranunculoides. natans.
- 3. ACTINOCARPUS. Damasonium.
- 4. BUTOMUS.
- umbellatus. 5. SCHEUCHZERIA. palustris.
- 6. TRIGLOCHIN. palustre. maritimum.

87, Asparagaceæ.

- 1. Ruscus.
- aculeatus. 2. SMILACINA.
- bifolia.
- 3. CONVALLARIA. majalis.

- 4. ASPARAGUS. officinalis.
- 5. POLYGONATUM.
 verticillatum.
 multiflorum.
 officinale.

88. Liliaceæ.

- 1. LLOYDIA. serotina.
- 2. TULIPA.
- sylvestris.
 3. FRITILLARIA.
 Meleagris.
- 4. GAGEA.
- lutea.
 5. ALLIUM.
 - Ampeloprasum. Scorodoprasum. sphærocephalum. vineale. oleraceum. Schænoprasum. triquetrum.
- ursinum.
 6. MUSCARI.
 racemosum.
- 7. ENDYMION.
- nutans.
 8. Lilium.
 Martagon.
- 9. SCILLA. autumnalis. verna.
- 10. ORNITHOGALUM.
 nutans.
 umbellatum.
 pyrenaicum.
- 11. SIMETHIS. bicolor.

89. Melanthaceæ.

- 1. NARTHECIUM. ossifragum.
- 2. Tofieldia. palustris.
- 3. Colchicum.

90. Juncaceæ.

1. Juncus.
trifidus.
castaneus.
triglumis.
biglumis.
acutus.
maritimus.
communis.
glaucus.

balticus, filiformis, obtusiflorus, articulatus, capitatus, pygmæus, bufonius, compressus, squarrosus.

Squarrosus.
2. LUZULA.
Forsteri.
pilosa.
sylvatica.
campestris.
arcuata.
spicata.

91. Eriocaulaceæ.

1. ERIOCAULON. septangulare.

92. Typhaceæ.

- 1. TYPHA. latifolia. angustifolia.
- 2. SPARGANIUM, ramosum, simplex, affine, minimum, natans.

93. Araceæ.

- 1. ARUM. maculatum. italicum.
- 2. ACORUS. Calamus.

94. Lemnaceæ.

- 1. Wolffia. arhiza.
- 2. LEMNA.
 trisulca.
 minor.
 gibba.
 polyrhiza.

95. Potamogetonaceæ.

- 1. ZANNICHELLIA. palustris.
- 2. RUPPIA. maritima. rostellata.
- 3. Potamogeton.
 natans.
 rufescens.
 lanceolatus.

heterophyllus. lucens. prælongus. perfoliatus. crispus. densus. compressus. obtusifolius. pusillus. richoides. pectinatus.

96. Naiadaceæ.

- 1. NAIAS. flexilis.
- 2. Zostera. marina. nana.

97. Cyperaceæ.

1. CAREX. dioica. pulicaris. rupestris. pauciflora. incurva. divisa. disticha. arenaria. teretiuscula. paniculata. vulpina. muricata. stellulata. remota. axillaris. elongata. canescens. lagopina. leporina. alpina. atrata. Buxbaumii. stricta. acuta. aquatilis. vulgaris. glauca. limosa. digitata. onithopoda. humilis. montana. pilulifera. ericetorum. præcox. tomentosa. pallescens. panicea. vaginata. capillaris.

pendula. strigosa. depauperata. sylvatica. lævigata. binervis. distans. punctata. frigida. extensa. flava. filiformis. hirta. Pseudo-cyperus. paludosa. riparia. ampullacea. vesicaria. pulla.

- 2. Kobresia.
- 3. Schenus.
- 4. CYPERUS. fuscus. longus.
- 5. ERIOPHORUM.

 alpinum.

 vaginatum.

 angustifolium.

 gracile.

 latifolium.
- 6. ELEOCHARIS.
 acicularis.
 palustris.
 multicaulis.
 pauciflora.
 cæspitosa.
 parvula.
- 7. RHYNCHOSPORA. fusca. alba.
- 8. BLYSMUS. compressus. rufus.
- 9. SCIRPUS.
 lacustris.
 triqueter.
 pungens.
 maritimus.
 sylvaticus.
- 10. ISOLEPIS.
 fluitans.
 Savii.
 setaceus.
 Holoschænus.
- 11. CLADIUM. Mariscus.

98. Gramineæ.

1. LEPTURUS. filiformis.

- 2. HORDEUM.
 sylvaticum.
 pratense.
 murinum.
 maritimum.
- 3. LAGURUS. ovatus.
- 4. Polypogon. monspeliensis. littoralis.
- 5. Phleum.
 alpinum.
 pratense.
 Boehmeri.
 arenarium.
- 6. PHALARIS. canariensis.
- 7. SETARIA. viridis.
- 8. Psamma. arenaria. baltica.
- 9. ALOPECURUS.
 agrestis.
 fulvus.
 geniculatus.
 bulbosus.
 pratensis.
 alpinus.
- 10. Anthoxanthum.
- 11. GASTRIDIUM. lendigerum.
- 12. NARDUS. stricta.
- 13. CHAMAGROSTIS. minima.
- 14. CYNODON. Dactylon.
- 15. DIGITARIA. humifusa.
- 16. SPARTINA. stricta.
- alterniflora.

 17. ECHINOCHLOA.

 Crus-galli.
- 18. LEERSIA. oryzoides.
- 19. MELICA.
 nutans.
 uniflora.
- 20. MILIUM. effusum.
- 21. DIGRAPHIS. arundinaceæ.
- 22. AGROSTIS, setacea, canina, alba, vulgaris,

- 23. APERA. Spica-venti. interrupta.
- 24. CALAMAGROSTIS. Epigeios. lanceolata. stricta.
- 25. SESLERIA. cærulea.
- 26. KŒLERIA. cristata.
- 27. CYNOSURUS. cristatus. echinatus.
- 28. LOLIUM.

 perenne.

 italicum.

 temulentum.
- 29. TRITICUM.
 caninum.
 repens.
 pungens.
 acutum.
 junceum.
- 30. BRACHYPODIUM. sylvaticum. pinnatum.
- 31. ELYMUS. arenarius.
- 32. TRIODIA. decumbens.
- 33. PHRAGMITES, communis.
- 34. HIEROCHLOE. borealis.
- 35. CATABROSA. aquatica.
- 36. MOLINIA. cærulca.
- 37. Poa.
 annua.
 bulbosa.
 alpina.
 stricta.
 laxa.
 glauca.
 nemoralis.
 compressa.
 pratensis.

trivialis.

- 38. BRIZA. media. minor.
- 39. FESTUCA.
 uniglumis.
 Myurus,
 sciuroides,
 ovina.
 rubra.
 duriuscula.
 sylvatica.

elatior. pratensis. gigantea.

40. SCLEROCHLOA.
maritina.
distans.
Borreri.
procumbens.
rigida.
loliacea.

41. GLYCERIA. fluitans. plicata.

aquatica.
42. ARRHENATHERUM.
elatius.

43. Holcus. mollis. lanatus.

44. CORYNEPHORUS. canescens.

45. AIRA.

cæspitosa.
uliginosa.
flexuosa.
caryophyllea.
præcox.

46. AVENA.

pubescens.

pratensis.

strigosa.

fatua.

47. TRISETUM. flavescens.

48. DACTYLIS. glomerata.

49. Bromus.
asper.
erectus.
madritensis.
maximus.
sterilis.
secalinus.
racemosus.
commutatus.
mollis.

arvensis. 99. Equisetaceæ.

1. EQUISETUM. arvense, pratense. maximum, sylvaticum.
palustre.
limosum.
hyemale.
variegatum.

100. Characeæ.

1. CHARA. flexilis. syncarpa. translucens. mucronata. gracilis. tenuissima. glomerata. intricata. alopecuroides. crinita. fœtida. hispida. tomentosa. aspera. fragilis.

101. Lycopodiaceæ.

1. ISOËTES. lacustris. echinospora. Hystrix.

2. LYCOPODIUM.
clavatum.
annotinum.
alpinum.
inundatum.
Selago.
Selaginoides.

102. Marsileaceæ.

1. PILULARIA. globulifera.

103. Filices.

1. OPHIOGLOSSUM. vulgatum. lusitanicum.

2. Botrychium. Lunaria.

3. OSMUNDA. regalis.

4. TRICHOMANES.

5. Hymenophyllum. tunbridgense. unilaterale.

6. ADIANTUM. Capillus-Veneris.

7. PTERIS. aquilina.

8. BLECHNUM. boreale.

9. CRYPTOGRAMME. crispa.

10. POLYPODIUM.
vulgare.
Phegopteris.
Dryopteris.
Robertianum.
alpestre.

11. Woodsia.
hyperborea.
ilvensis.

12. LASTREA.

Filix-mas.

rigida.

cristata.

spinulosa.

dilatata.

æmula.

Thelypteris.

Oreopteris.

13. Polystichum.

Lonchitis.

aculeatum.

angulare.

14. CYSTOPTERIS.
fragilis.
montana.

15. GYMNOGRAMME. leptophylla.

16. ATHYRIUM. Filix-fæmina.

17. ASPLENIUM.
Ruta-muraria.
germanicum.
septentrionale.
Trichomanes.
viride.
marinum.
lanceolatum.
Adiantum-nigrum.

18. CETERACH.

19. SCOLOPENDRIUM. vulgare.

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